GARMIN

G500H

Cockpit Reference Guide

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This manual reflects the operation of system software version 6.00 or later. Some differences in operation may be observed when comparing the information in this manual to later software versions.

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Warnings, Cautions, & Notes

WARNING: *Navigation and terrain separation must NOT be predicated upon the use of the terrain function. The G500H Terrain Proximity feature is NOT intended to be used as a primary reference for terrain avoidance and does not relieve the pilot from the responsibility of being aware of surroundings during flight. The Terrain Proximity feature is only to be used as an aid for terrain avoidance and is not certified for use in applications requiring a certified terrain awareness warning system. Terrain data is obtained from third party sources. Garmin is not able to independently verify the accuracy of the terrain data.*

WARNING: *The displayed minimum safe altitudes (MSAs) are only advisory in nature and should not be relied upon as the sole source of obstacle and terrain avoidance information. Always refer to current aeronautical charts for appropriate minimum clearance altitudes.*

WARNING: *The Garmin G500H has a very high degree of functional integrity. However, the pilot must recognize that providing monitoring and/or self-test capability for all conceivable system failures is not practical. Although unlikely, it may be possible for erroneous operation to occur without a fault indication shown by the G500H. It is thus the responsibility of the pilot to detect such an occurrence by means of cross-checking with all redundant or correlated information available in the cockpit.*

WARNING: *The altitude calculated by GPS receivers is geometric height above Mean Sea Level and could vary significantly from the altitude displayed by pressure altimeters, such as the output from the GDC 74H Air Data Computer, or other pressure altimeters in aircraft. GPS altitude should never be used for vertical navigation. Always use pressure altitude displayed by the G500H PFD or other pressure altimeters in aircraft.*

WARNING: *Do not use outdated database information. Databases used in the G500H system must be updated regularly in order to ensure that the information remains current. Pilots using an outdated database do so entirely at their own risk.*

WARNING: *Do not use basemap (land and water data) information for primary navigation. Basemap data is intended only to supplement other approved navigation data sources and should be considered as an aid to enhance situational awareness.*

WARNING: *Traffic information shown on the G500H Multi-Function Display is provided as an aid in visually acquiring traffic. Pilots must maneuver the aircraft based only upon ATC guidance or positive visual acquisition of conflicting traffic.*

WARNING: *Datalink weather radar should not be used for hazardous weather penetration. Weather information provided by the datalink receiver is approved only for weather avoidance, not penetration.*

WARNING: *Datalink weather radar data is to be used for long-range planning purposes only. Due to inherent delays in data transmission and the relative age of the data, datalink weather radar data should not be used for short-range weather avoidance.*

WARNING: *For safety reasons, G500H operational procedures must be learned on the ground.*

WARNING: *To reduce the risk of unsafe operation, carefully review and understand all aspects of the G500H Pilot's Guide. Thoroughly practice basic operation prior to actual use. During flight operations, carefully compare indications from the G500H to all available navigation sources, including the information from other NAVAIDs, visual sightings, charts, etc. For safety purposes, always resolve any discrepancies before continuing navigation.*

WARNING: *Never use the G500H to attempt to penetrate a thunderstorm. Both the FAA Advisory Circular, Subject: Thunderstorms, and the Airman's Information Manual (AIM) recommend avoiding "by at least 20 miles any thunderstorm identified as severe or giving an intense radar echo".*

WARNING: *Exceeding 200 deg/second in pitch or roll may invalidate AHRS attitude provided to the G500H.*

WARNING: *Because of anomalies in the earth's magnetic field, operating the G500H within the following areas could result in loss of reliable attitude and heading indications. North of 65° North latitude between longitude 75° West and 120° West. An area North of 70° North latitude between longitude 70° West and 128° West. An area of North of 70° North latitude between longitude 85° East and 114° East. An area South of 55° South latitude between longitude 120° East and 165° East.*

WARNING: *Do not use Terrain-HSVT information for primary terrain avoidance. Terrain-HSVT is intended only to enhance situational awareness.*

CAUTION: *The United States government operates the Global Positioning System and is solely responsible for its accuracy and maintenance. The GPS system is subject to changes which could affect the accuracy and performance of all GPS equipment. Portions of the Garmin G500H utilize GPS as a precision electronic NAVigation AID (NAVAID). Therefore, as with all NAVAIDs, information presented by the G500H can be misused or misinterpreted and therefore, become unsafe.*

CAUTION: *The Garmin G500H does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could void both the warranty and pilot's authority to operate this device under FAA/FCC regulations.*

CAUTION: *The G500H PFD and MFD displays use a lens coated with a special anti-reflective coating that is very sensitive to skin oils, waxes, and abrasive cleaners. CLEANERS CONTAINING AMMONIA WILL HARM THE ANTI-REFLECTIVE COATING. It is very important to clean the lens using a clean, lint-free cloth and an eyeglass lens cleaner that is specified as safe for anti-reflective coatings.*

NOTE: *Interference from GPS repeaters operating inside nearby hangars can cause an intermittent loss of attitude and heading displays while the aircraft is on the ground. Moving the aircraft more than 100 feet away from the source of the interference should alleviate the condition.*

NOTE: *All visual depictions contained within this document, including screen images of the G500H bezel displays, are subject to change and may not reflect the most current G500H system. Depictions of equipment may differ slightly from the actual equipment.*

NOTE: *This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This notice is being provided in accordance with California's Proposition 65. If you have any questions or would like additional information, please refer to our web site at www.garmin.com/prop65.*

NOTE: *This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

NOTE: *Terrain data is not displayed when the aircraft latitude is greater than 75° North or 60° South.*

NOTE: *Terrain-HSVT is standard when the Synthetic Vision Technology (SVT) option is installed. The HTAWS option will take precedence over Terrain-HSVT.*

Record of Revisions			
Part Number	**Revision**	**Date**	**Description**
190-01150-03	A	Jan 2010	Production Release
	B	Mar 2010	Updated speed tape markings.
	C	Nov 2010	Update to reflect v4.00 and v5.00 software functionality.
	D	Aug 2011	Update to reflect v6.00 software functionality.
	E	Jan 2012	Minor edits.

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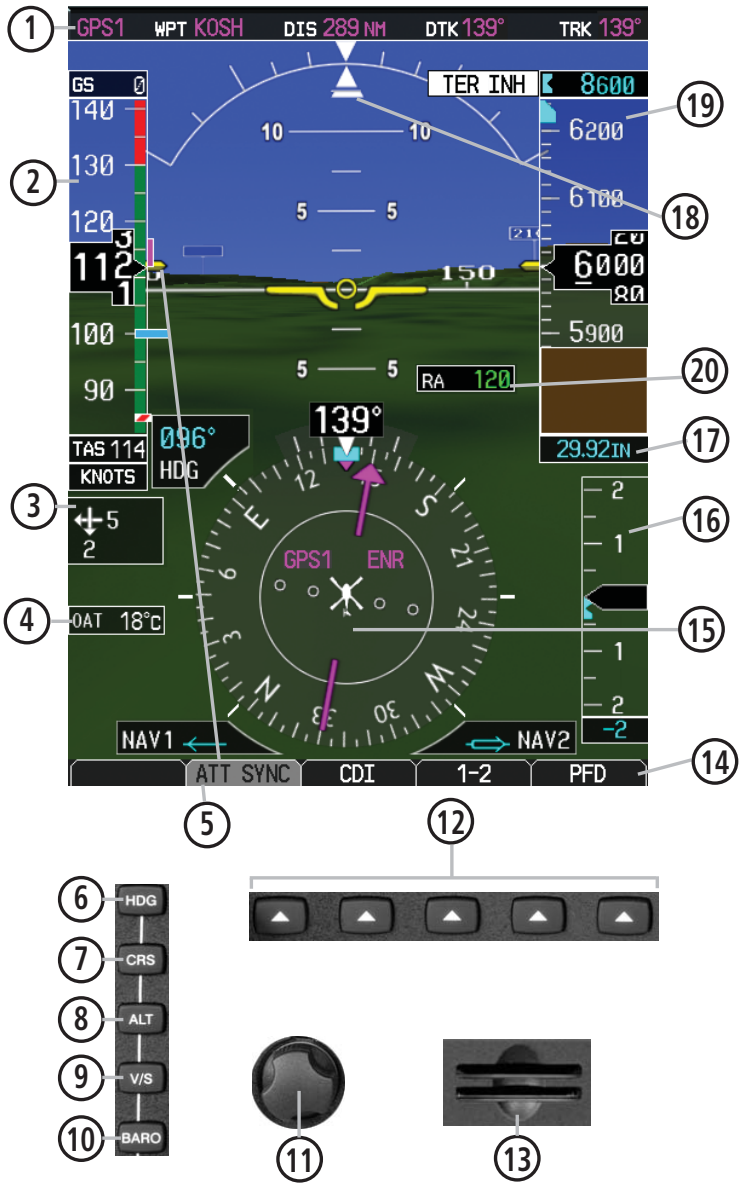
Introduction

This reference guide covers the operation of the GDU 620 as integrated in the G500H Avionics Display System. The G500H Avionics Display System is an avionics suite that combines primary flight instrumentation, navigational information, and a moving map all displayed on dual 6.5 inch color screens. The G500H system is composed of sub-units or Line Replaceable Units (LRUs). LRUs have a modular design. This design greatly eases troubleshooting and maintenance of the G500H system. A failure or problem can be isolated to a particular LRU, which can be replaced quickly and easily. Each LRU has a particular function, or set of functions, that contributes to the system's operation. For more details on the G500H system, refer to the latest revision of the G500H Pilot's Guide, P/N 190-01150-02.

PFD/MFD

NOTE: *Some G500Hs have the right-side display configured as the PFD.*

Primary Flight Display (PFD)



Primary Flight Display (PFD)

1. *NAV Status Bar: Displays which GPS is selected as the Active Source, Active Waypoint (WPT), Distance to Waypoint (DIS), Desired Track (DTK) and Current Track (TRK).*
2. *Airspeed Tape: Displays Groundspeed (GS), Overspeed Range, Maximum (Vne) Speed with Engine On, Airspeed Trend, Current Airspeed, Max (Vne) Speed with Engine Off* **OR** *Max Autorotation Speed, and True Airspeed (TAS). Markings dependent upon configuration at time of installation. Reference AFM or POH.*
3. *Wind Vector: Displays direction and speed of wind.*
4. *Outside Air Temperature (OAT): Displays the current outside air temperature.*

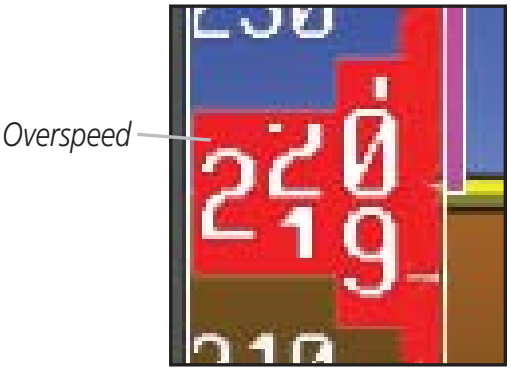
5. *Attitude Sync Soft Key: Allows the synchronization of the aircraft to the horizon in level flight.*
6. *Heading Select Key: Press **HDG** and turn **PFD** knob to set heading bug.*
7. *Course Select Key: Press **CRS** and turn **PFD** knob to set the course of the selected source (VOR1, VOR2, GPS1, or GPS2).*
8. *Altitude Select Key: Press **ALT** and turn **PFD** knob to set altimeter bug.*
9. *V/S (Vertical Speed) Select Key: Press **V/S** and turn **PFD** knob to set V/S bug.*
10. *Barometer Select Key: Press **BARO** and turn **PFD** knob to change barometric setting.*
11. *PFD Knob: Turn **PFD** knob to change bug settings, Heading Bug, Course, Altitude Bug, V/S Bug, and Barometer setting.*
12. *Soft Keys: Used to select available options on PFD or MFD.*
13. *SD Card Slots, Upper and Lower: The upper slot is used for updating databases or software, the lower slot is for the database card.*
14. *Soft Key Labels: Located on the bottom screen of the PFD and MFD. Selection is done by pressing the corresponding soft key. Soft keys that are available have the labels shown as white text on a black background. Soft keys that are selected have the labels shown as black text on a gray background. Soft keys that are unavailable have the labels shown as gray text on a black background.*
15. *Horizontal Situation Indicator (HSI): Displays the Selected Heading Box, Current Heading, Turn Rate Markings, and Heading Trend.*
16. *Vertical Speed Tape: Displays Vertical Speed and the Vertical Speed Bug*
17. *Barometric (BARO) Setting: Displays the current setting of barometric pressure.*
18. *Roll Pointer and Slip/Skid Indicator: The slip/skid indicator is the bar beneath the roll pointer. The indicator moves with the roll pointer and laterally away from the pointer to indicate lateral acceleration (slip/skid).*
19. *Altitude Tape: Displays Current Altitude, Altitude Trend, Altitude Bug, Altitude Minimums Bug and BARO setting.*
20. *Radar Altimeter Display: Displays current height above ground from the radar altimeter. Brown band in altitude tape represents the ground.*

Airspeed Tape

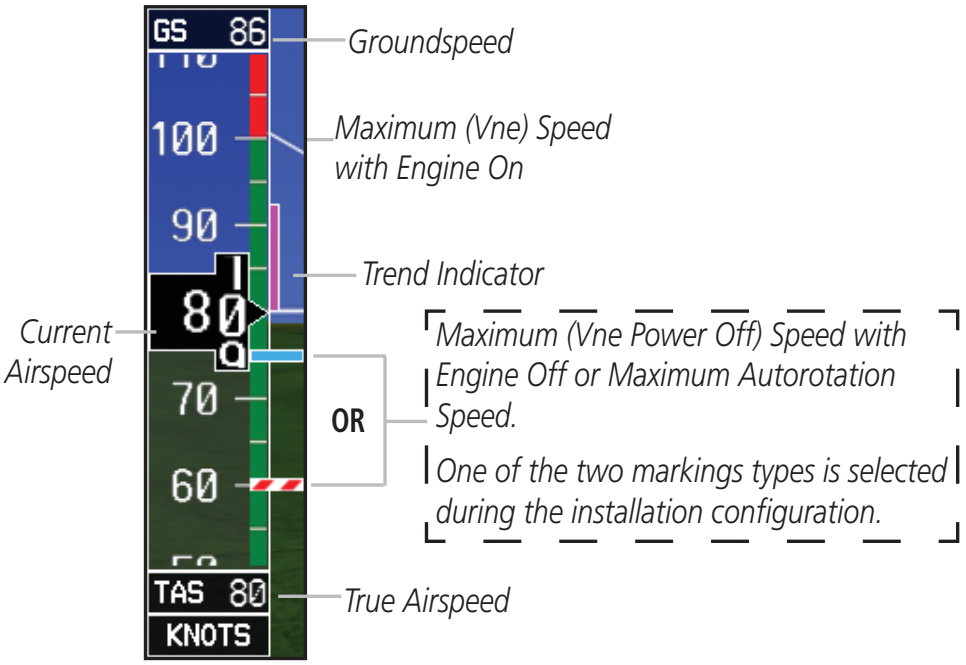
The upper left portion of the PFD display provides Groundspeed, Airspeed Trend, Current Airspeed, and True Airspeed information. Current Airspeed is normally shown in white on the black pointer. The Trend Indicator (magenta line) indicates what the airspeed will be in six seconds, if the current acceleration is maintained. If the current acceleration will cause the airspeed to exceed VNE in six seconds, the airspeed is displayed in yellow. If the current airspeed exceeds VNE, the pointer changes to red with white text.

NOTE: Airspeed tape markings are dependent upon configuration at the time of installation. Reference the POH for more details.

Airspeed Tape Markings



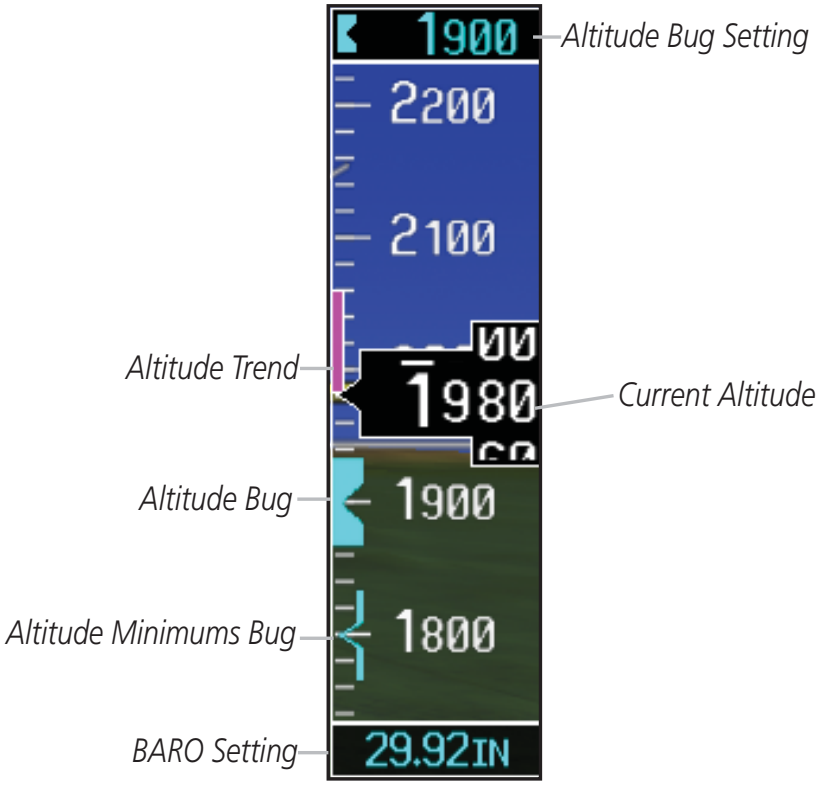
Overspeed Indication



Airspeed Tape

Altitude Tape

The upper right portion of the PFD displays the Altitude Bug setting, Current Altitude, Altitude Trend, Altitude Minimums Bug, and the current BARO Setting. The Altitude Trend indicates what the altitude will be in six seconds if the current vertical speed is maintained.



Altitude Tape

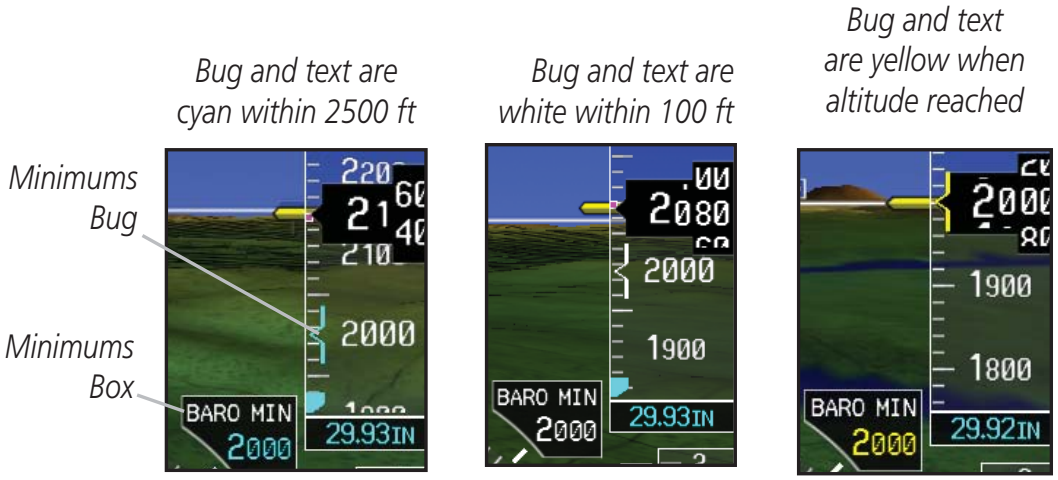
Barometric Pressure

The Barometric Pressure Setting (BARO setting) is displayed at the bottom of the altitude tape. To change the BARO setting, press the **BARO** key and turn the **PFD** knob to the desired pressure. To select standard pressure (29.92IN), press the **PFD** knob.

Minimums Bug (Barometric or Radar Altimeter)

For altitude awareness, an Altitude Minimums Bug commonly referred to as the Minimums Bug, can be set. the source of data for minimums alerting can be selected to either barometric altitude or radar altitude (if installed.) When active and within 2500 feet of the selected minimums altitude, the minimums bug setting is displayed to the bottom left of the altimeter. When set, a bug appears parked at the bottom of the altitude tape and moves up the tape as the set altitude comes into view.

- When the aircraft altitude descends to within 2500 feet of the selected altitude minimums setting, the minimums box appears with the altitude value in cyan text. Once in range, the Minimums Bug appears in cyan on the altitude tape. A portion of the Minimums Bug will be displayed at the bottom of the altitude tape if the selected altitude minimums bug is off of the tape.
- When the aircraft is within 100 feet of the selected altitude minimums setting, the bug and the altitude text turn white.
- Once the aircraft reaches the selected altitude minimums setting, the bug and the altitude text turn yellow and the aural alert, "Minimums, minimums" is heard one time.



Minimums Annunciations using BARO for Source

Alerting is inhibited while the aircraft is on the ground and also, if a value has been set for altitude alerting, until the aircraft reaches 150 feet above the setting for the alert.

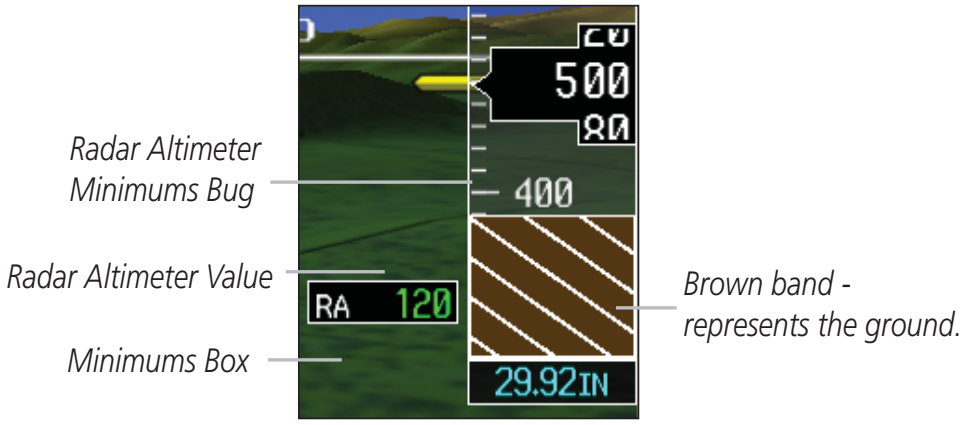
To set the altitude for the Minimums Bug:

1) While viewing the Active Flight Plan page of the FPL Group, press the small **MFD** knob to activate the cursor.
2) Turn the large **MFD** knob to the ALTITUDE portion of the MINIMUMS section.
3) Turn the small **MFD** knob to enter the desired altitude. Press the **ENT** key to confirm selection.
4) When finished, press the small **MFD** knob to exit the MINIMUMS box.

The Minimums Bug can also be set from the Charts page of the FPL.

1) While viewing the Charts page of the FPL Group, press the **MNU** key and select "Set Minimums" from the Options menu.
2) Turn the small **MFD** knob to select Off, BARO, or RAD ALT.
3) Press the ENT key to move to enter altitude. Turn the small **MFD** knob to enter the desired altitude. Press the **ENT** key to confirm selection.

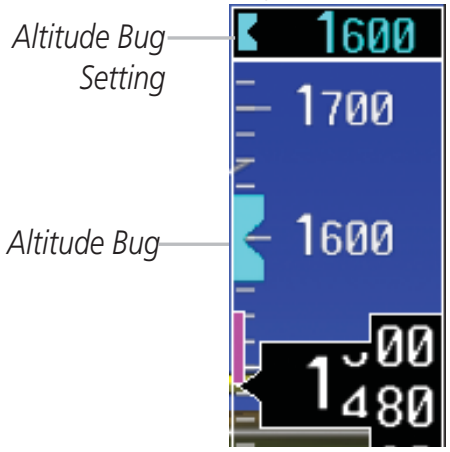
NOTE: *BARO will not be available for selection on G500H models.*



Minimums Annunciations using RAD ALT for Source

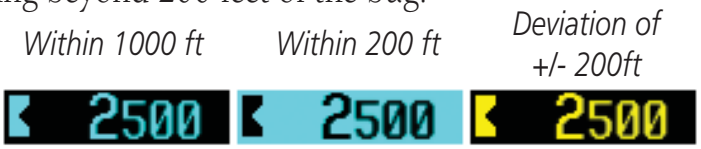
Altitude Bug

The Altitude Bug is displayed on the Altitude Tape at the selected altitude bug setting. A portion of the Altitude Bug will be displayed at the top or bottom of the altitude tape if the selected altitude bug is off of the tape.



Altitude Bug

The Altitude Bug provides visual and aural altitude alerting. Aural alerting occurs within 200 feet (or 1000 feet, as configured) of the Altitude Bug setting or when deviating beyond 200 feet of the bug.



Altitude Bug Indications

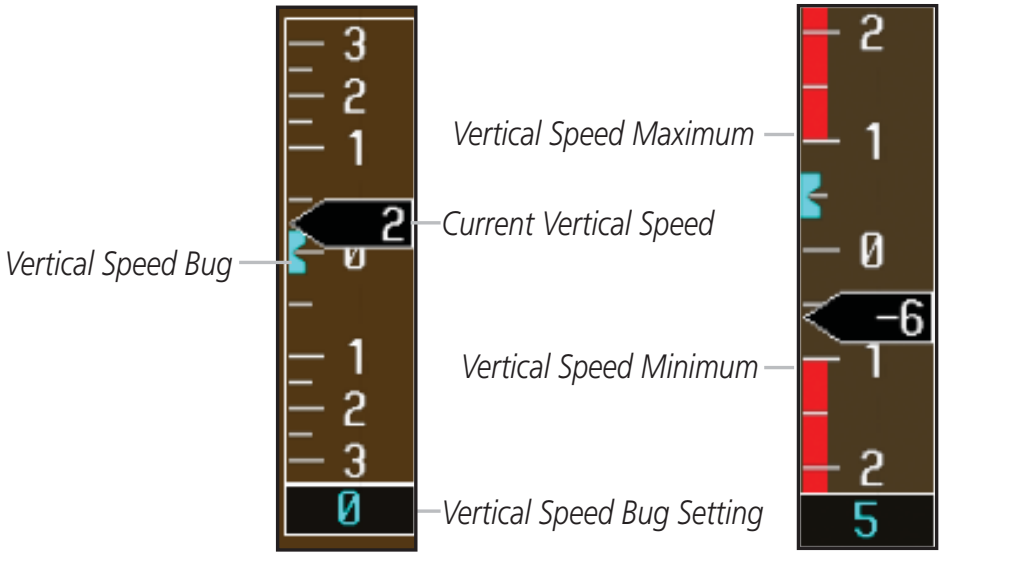
Wind Vectors

The PFD will display a Wind Vector Field to the left of the HSI when configured by the user. There are four different styles of wind vector displays available. Refer to the System Setup page in the AUX Group section of this guide for instructions on selecting wind vector style. Wind Vectors can only be calculated when the aircraft is in the air. When airspeed is less than 20 knots, the Wind Vector windows will indicate, "No Wind Data".

Wind Vector Display

Vertical Speed (V/S)

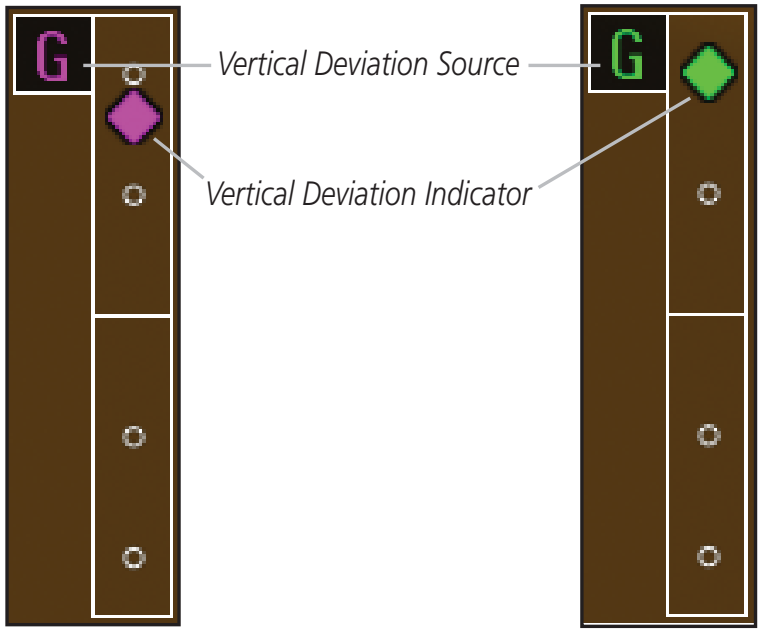
The Vertical Speed Tape and Vertical Speed Bug are displayed below the Altitude Tape. For rotorcraft with vertical speed operating limitations, red bands showing Vertical Speed Maximum and Minimum ranges will be shown on the left side of the Vertical Speed tape.



Vertical Speed **Vertical Speed - Rotorcraft**

Vertical Deviation Indicator (VDI)

The Vertical Deviation Indicator is displayed for GPS and ILS approaches with vertical guidance. The GPS approach glidepath is shown in magenta (G and indicator), while the ILS approach glideslope is shown in green (G and indicator.)



Outside Air Temperature (OAT)

The Outside Air Temperature, as sensed from the temperature probe on the aircraft, is displayed to the left of the HSI. This static air temperature is used in calculating the true airspeed.

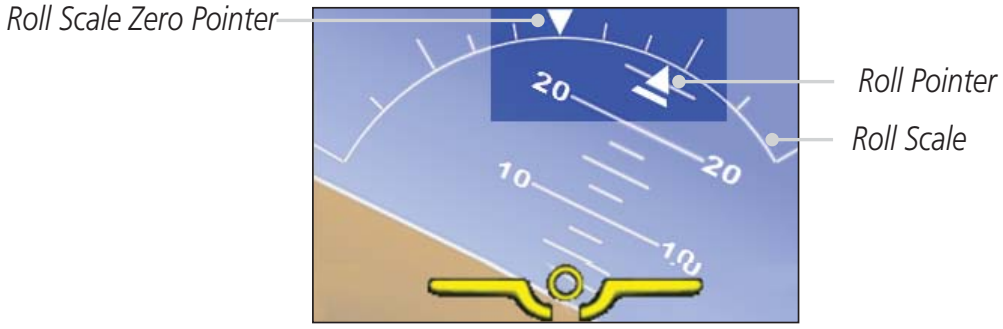
Attitude Indicator

Ground/Sky Pointer mode is configured during installation and can not be changed by the pilot.

In an aircraft with an Attitude Indicator that has a Ground Pointer, the pointer above the roll scale shifts with the roll or bank angle of the aircraft to keep the Roll Scale Zero Pointer pointing towards the ground.

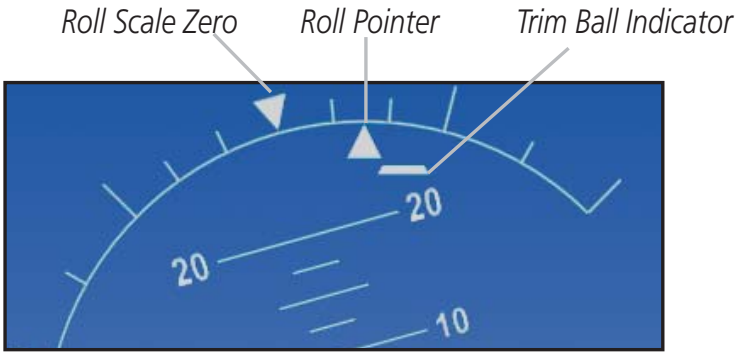
G500H Attitude Indicator with a Ground Pointer Configuration in a Left Turn

In an aircraft with an Attitude Indicator that has a Sky Pointer, the pointer below the roll scale shifts with the roll or bank angle of the aircraft to keep the Roll Pointer pointing towards the sky.



G500H Attitude Indicator with a Sky Pointer Configuration in a Left Turn

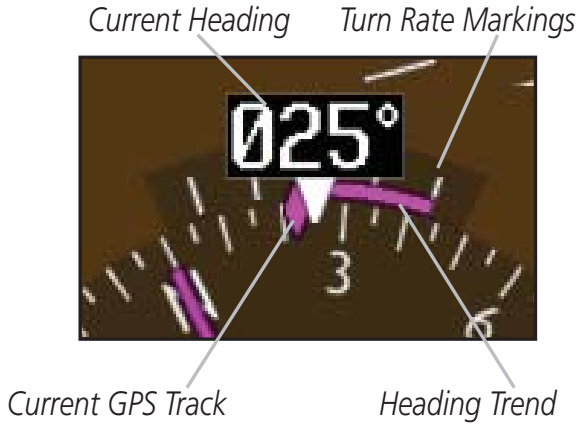
The Trim Ball Indicator is the bar beneath the roll pointer. The indicator moves with the roll pointer and moves laterally away from the pointer to indicate lateral acceleration. Trim is indicated by the location of the bar relative to the pointer. One bar displacement as shown below is equivalent to one ball displacement on a traditional Trim Ball Indicator.



Trim Indication

Horizontal Situation Indicator (HSI): Aircraft Heading

The top of the HSI displays current heading, current GPS track (magenta diamond), heading trend, and turn rate markings. The heading trend indicates what the aircraft heading will be in six seconds if the heading rate remains unchanged. The turn rate markings, along with the heading trend, display standard and half-standard rate turns.



HSI Heading Markings

NOTE: If magnetic heading is lost, GPS ground track will be displayed in place of heading.

Adjusting the Course Pointer

Press the **CRS** key and turn the **PFD** knob to select a course for a VOR/ILS or OBS mode course.

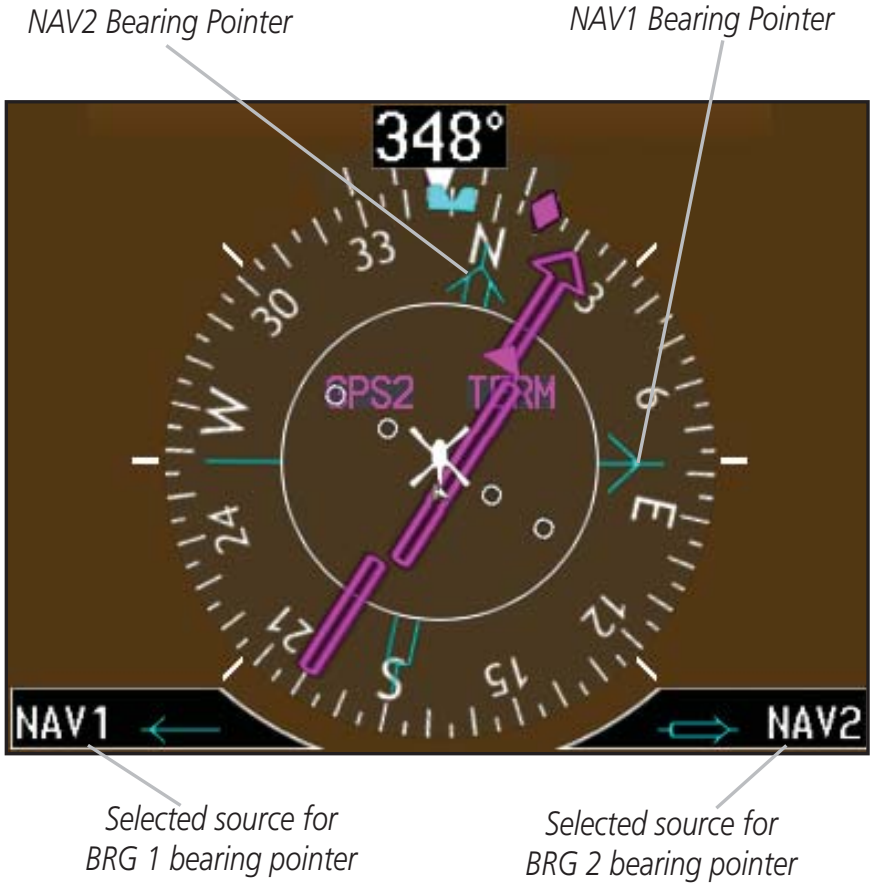
HSI Bearing Pointers

NOTE: *The Bearing Pointer for navigation source 1 (BRG1) will be an arrow with a single line. The Bearing Pointer for navigation source 2 (BRG2) will be an arrow with a double line.*

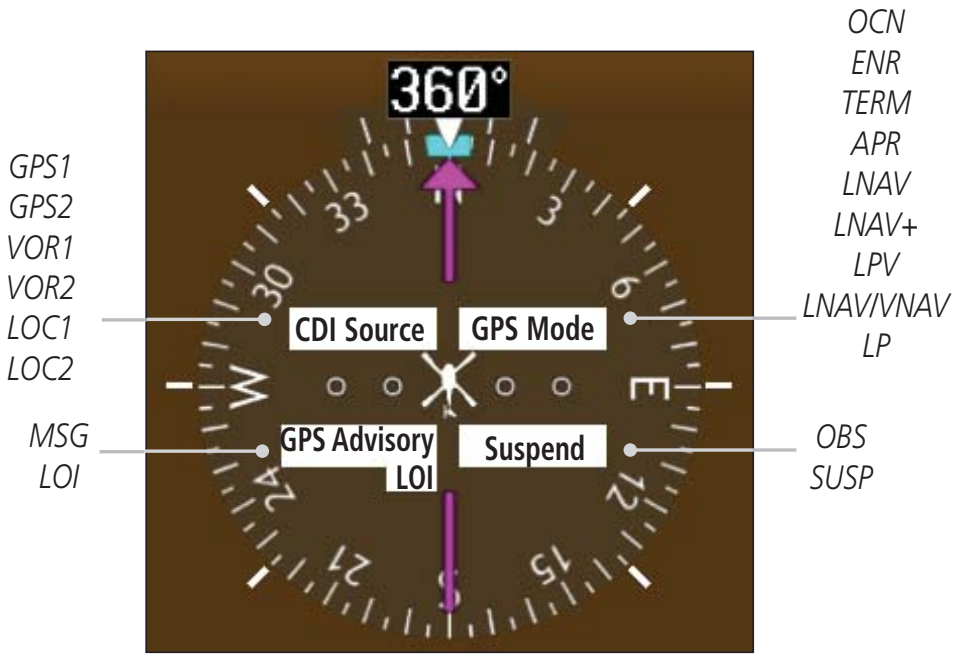
To toggle between the available bearing pointers, press the **PFD** soft key followed by the **BRG1** or **BRG2** soft keys.

The **BRG1** soft key cycles through modes NAV1 and GPS1. Additionally, ADF is available if an ADF source is installed.

The **BRG2** soft key cycles through modes, NAV2 and GPS2 if a second NAV or GPS source is available. Additionally, ADF is available if an ADF source is installed.



Bearing Pointers on the HSI



PFD HSI Annunciations

CDI Source

The CDI Source on the HSI will display which navigation source is selected.

Navigation sources available: GPS1, VOR1, or LOC1.

Navigation sources available: GPS2, VOR2, or LOC2, if a second source is available.

GPS Mode

The GPS Mode annunciation on the HSI will be the same as what is annunciated on the interfaced GPS unit. See the GPS/GNS Pilot's Guide for a description of each mode.

GPS Advisory

MSG: Displays when a new advisory message is displayed on the GNS.

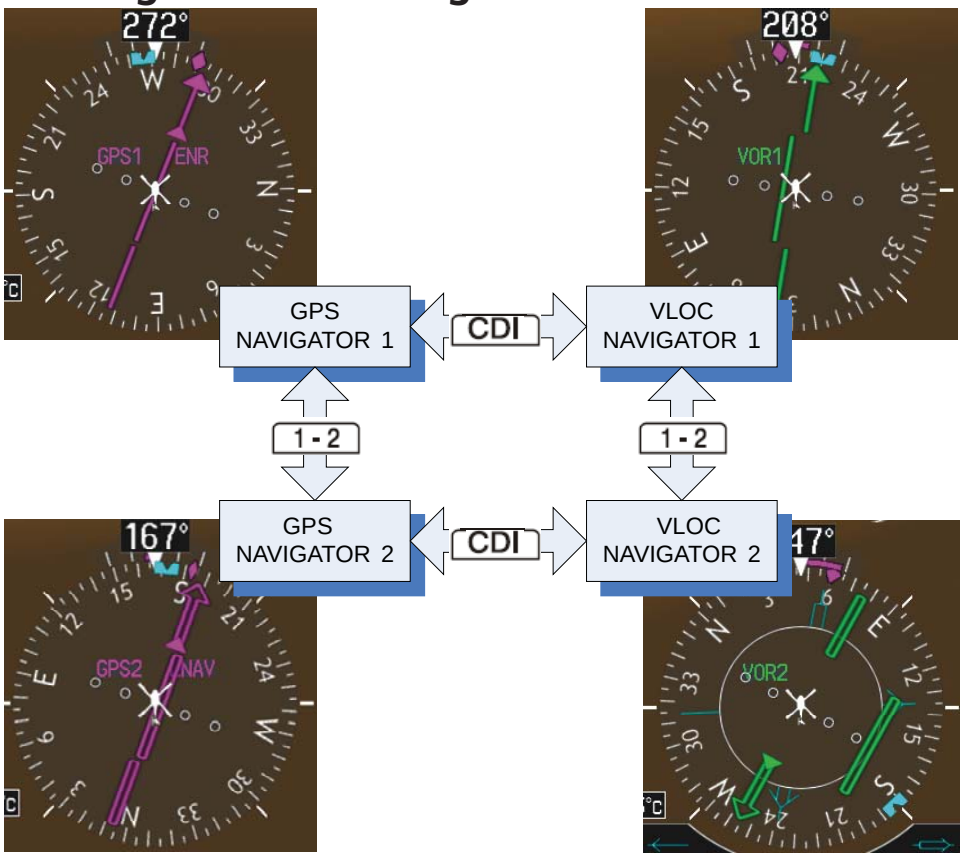
LOI (Loss of Integrity): Displays when GPS integrity is lost.

Suspend

OBS: Displays when OBS mode is activated.

SUSP: Displays when automatic waypoint sequencing on the interfaced GPS unit is suspended.

Switching Between Navigation Sources



CDI Sources

The Course Deviation Indicator (CDI) can display two sources of navigation: GPS or NAV (VOR or LOC). Press the **CDI** soft key to toggle between the available CDI modes, (GPS or VOR).

If a second GPS source or NAV source is available, pressing the **1 - 2** soft key will toggle the navigation sources (VOR1 and VOR2, or GPS1 and GPS2).

NOTE: *Verify the navigation source by the indication on the HSI.*

NOTE: *The selected navigator is the source for all PFD and MFD functions, except for bearing pointers and external TAWS PFD annunciations.*

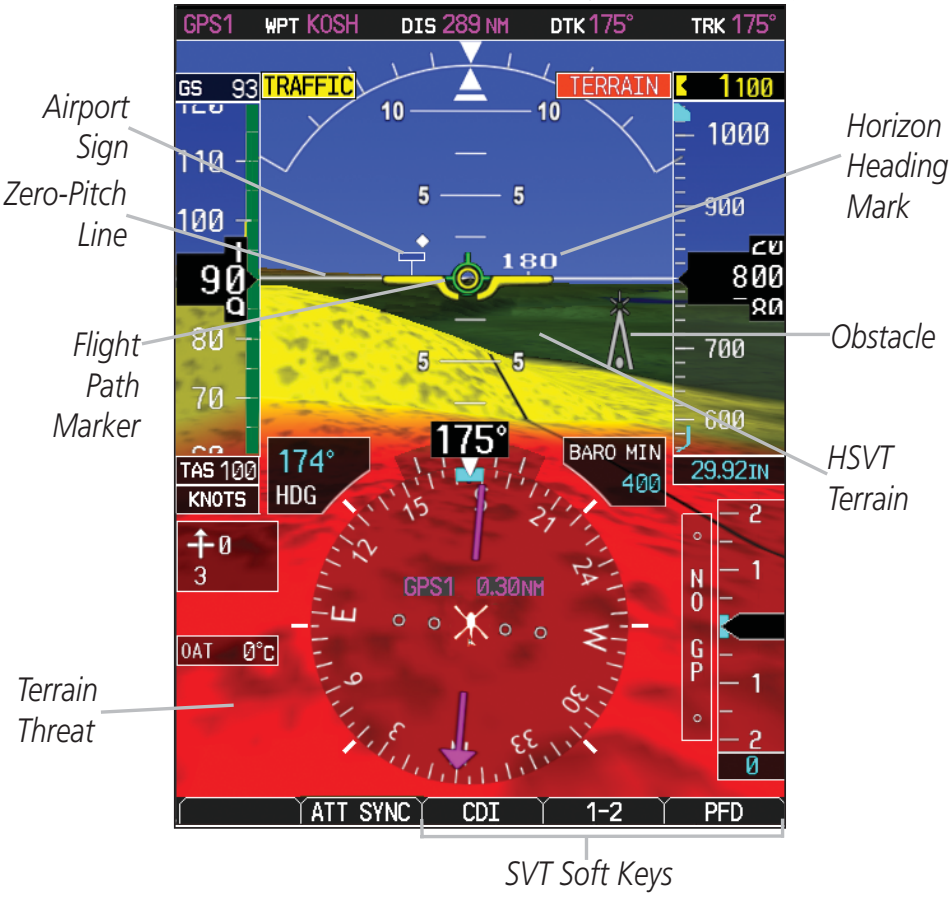
Additional Features

Garmin Terrain-HSVT™ (Optional)

Garmin Terrain-HSVT is offered as an optional feature to the G500H.

HSVT is primarily comprised of a computer-generated forward-looking, attitude aligned view of the topography immediately in front of the aircraft from the pilot's perspective. HSVT information is shown on the PFD.

HSVT offers a three-dimensional view of terrain and obstacles. Terrain and obstacles that pose a threat to the aircraft in flight are shaded yellow or red.



Terrain-HSVT Imagery

NOTE: *Terrain-HSVT will become disabled if the databases necessary to display Terrain-HSVT are unavailable (generating a GDU DB ERR or HSVT DISABLED alert) or AHRS or GPS data is unavailable. Terrain-HSVT may be restored once the fail conditions are removed by following the steps in "Displaying HSVT Terrain."*

NOTE: Airport Signs will only display airports, not heliports.

The following features are part of the Terrain-HSVT system. For more details refer to the latest revision of the G500H Pilot's Guide, 190-01150-02.

- Flight Path Marker
- Horizon Heading Marks
- Terrain/Obstacle Display and Alerting
- Three-dimensional Traffic
- Airport Signs
- Runway Display
- Water
- Zero-Pitch Line

NOTE: *Terrain-HSVT may be deactivated under certain conditions, such as loss of heading. Once condition is resolved, reactivate Terrain-HSVT, press the* ***PFD*** *soft key followed by the* ***SYN VIS*** *soft key, then the* ***SYN TERR*** *soft key.*

NOTE: *Terrain-HSVT features are not a substitute for standard course and altitude deviation information using the CDI, VSI, and VDI.*

Displaying Garmin Terrain-HSVT™ Terrain

1) Press the **PFD** soft key.
2) Press the **SYN VIS** soft key.
3) Press the **SYN TERR** soft key.
4) Press the **BACK** soft key to return to the previous page.

Displaying Heading on the Horizon

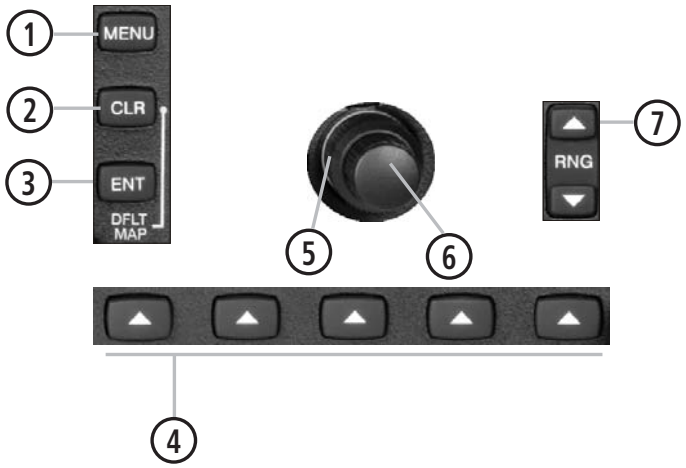
1) Press the **PFD** soft key.
2) Press the **SYN VIS** soft key.
3) If not already enabled, press the **SYN TERR** soft key.
4) Press the **HRZN HDG** soft key.
5) Press the **BACK** soft key to return to the previous page.

Displaying Airport Signs

NOTE: The 'Airport Signs' feature will only display airports, not heliports.

1) Press the **PFD** soft key.
2) Press the **SYN VIS** soft key.
3) If not already enabled, press the **SYN TERR** soft key.
4) Press the **APTSIGNS** soft key.
5) Press the **BACK** soft key to return to the previous page.

Multi-Function Display (MFD)



Multi-Function Display (MFD)

1. *Menu: Displays configuration items for each page of the page groups.*
2. *Clear: Erases information, cancels entries, or removes page menus. Pressing and holding the CLR key displays the first page of the Map Group.*
3. *Enter: Validates or confirms a menu selection or data entry.*
4. *Soft Keys*
5. *Large MFD Knob: Use to move between page groups.*
6. *Small MFD Knob: Use to move within page groups.*
7. *Range Select: Changes the range on the map pages. Up arrow zooms out, down arrow zooms in. Also aids in scrolling up and down text pages.*

Page Navigation - Moving Between Pages

1) Turn the large **MFD** knob to move between page groups.
2) Turn the small **MFD** knob to change pages within the page group.

NOTE: *Page Group and Page are shown at the bottom of the MFD.*

Changing Settings within a Page

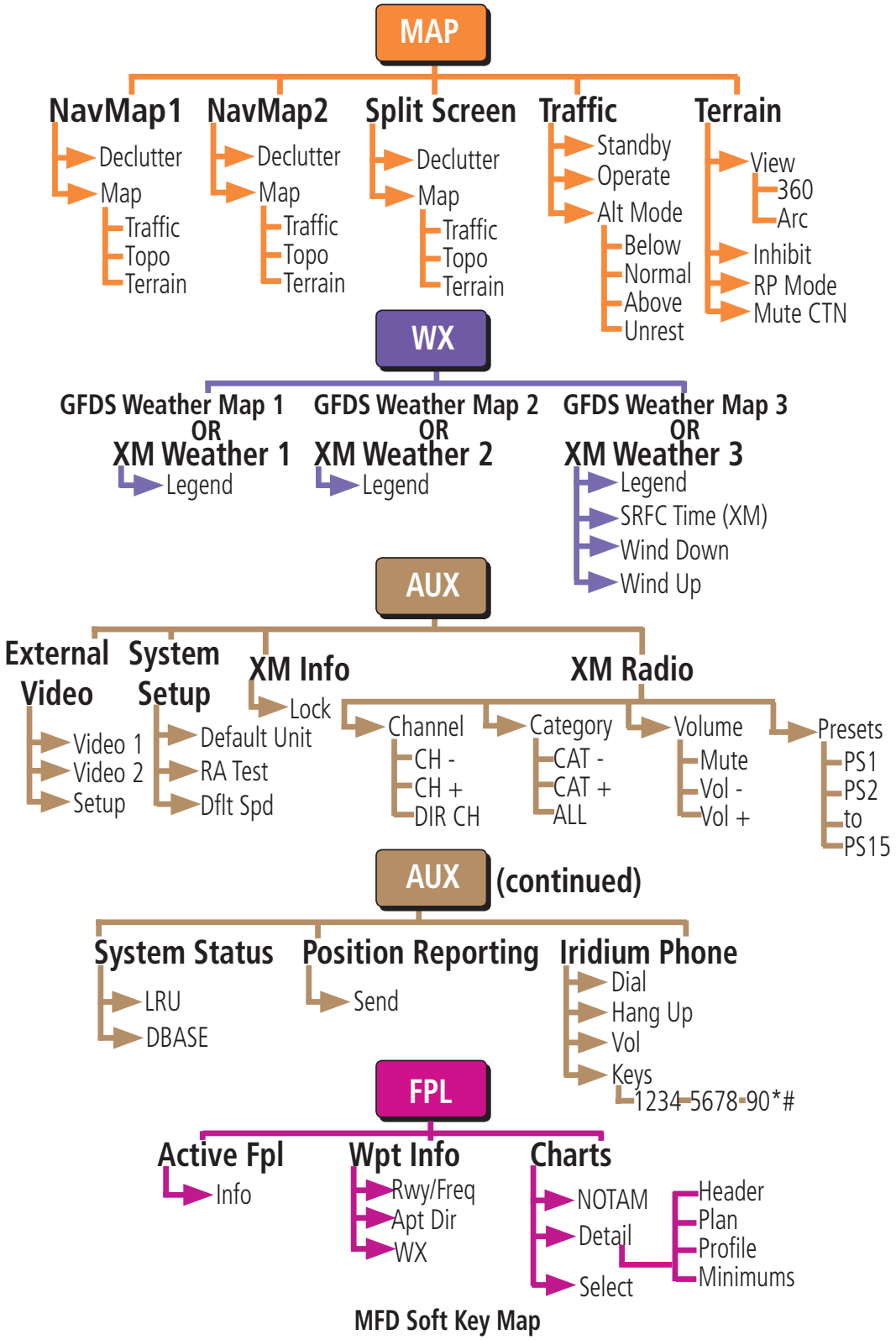
1) Press the **MENU** key and make the necessary adjustments with the large **MFD** knob and small **MFD** knobs.
2) Press the small **MFD** knob to activate editing.
3) Turn the large **MFD** knob to select the desired item.
4) Turn the small **MFD** knob to change the highlighted value.
5) Press **ENT** to accept displayed value or press the small **MFD** knob to cancel selection or exit the editing mode.

Default Map Page

Press and hold the **CLR** key to return to the first page of the MAP group.

MFD Soft Key Map

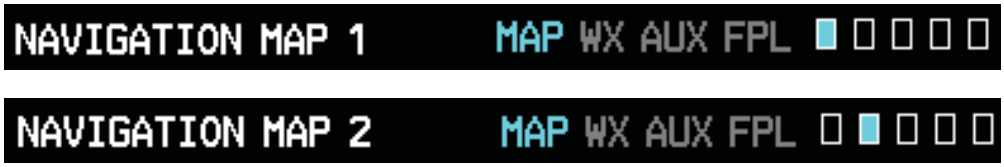
The soft keys available depend on the page displayed and the features available. The soft key "Alerts" is present on the far right position on all MFD pages.



MFD Soft Key Map

Map Group

Navigation Map 1 and Navigation Map 2 Pages



Soft Keys Found on Navigation Map Pages

MAP	DCLTR	DCLTR-1	DCLTR-2
DCLTR-3	TRAFFIC	TOPO	TERRAIN

Moving the Map Pointer Around the Map (Panning)

NOTE: *Panning can be used in Terrain pages to view elevation levels.*

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the small **MFD** knob. A flashing arrow (map pointer) will appear in the center of the map page.
2) Turn the large **MFD** knob to move the map pointer left and right (horizontally).
3) Turn the small **MFD** knob to move the map pointer up and down (vertically).
4) Press the small **MFD** knob again to exit panning mode.

Map Pointer

Selecting Items on the Map

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, while the map pointer is active, move the map pointer to highlight a waypoint.
2) Press **ENT** to display information about the highlighted waypoint.
3) Press the **INFO** soft key (if available) to view more information about the highlighted waypoint.
4) Press the **WX** soft key (if available) to view TAF and METAR information. Press the small **MFD** knob again to return to the map.

Decluttering (DCLTR) the Map Pages

There are four levels of decluttering, DCLTR, DCLTR-1, DCLTR-2, and DCLTR-3. DCLTR shows the most detail while DCLTR-3 removes most detail.

While viewing Navigation Map 1 or Navigation Map 2 page of the Map Page Group, press the **DCLTR** soft key. Each successive press of the **DCLTR** soft key will toggle through the declutter levels.

Turning on Map Overlays

While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the **MAP** soft key. Select the Traffic, TOPO, or Terrain overlays by pressing the appropriate soft key.

NOTE: The TOPO overlay and the TERRAIN overlay cannot be selected or displayed on the same page.

Measuring Distances

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press **MENU**.
2) Turn the large **MFD** knob or the small **MFD** knob to highlight "Measure Bearing/Distance" and then press **ENT**.
3) Turn the large **MFD** knob or small **MFD** knob to move the map pointer. The distance, bearing, and coordinates are displayed at the top of the screen.

Distance, Bearing and Coordinates Display

Measuring Map Pointer

4) Press **ENT** to reset the distance and bearing values.
5) Press the small **MFD** knob to stop measuring.

Customizing Maps

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the **MENU** key. The option, "Map Setup" option will flash.

Map Setup Option Menu

2) Press the **ENT** key to enter the setup page. The selected group will be flashing.

3) Turn the small **MFD** knob to activate the drop down menu and to move within available groups (Map, Weather, Traffic, or Aviation).

Available Groups

4) Press the **ENT** key to select the group and set your preferences.

5) Turn the large **MFD** knob to move between fields.

6) Turn the small **MFD** knob to display available options. Press the **ENT** key to select your preference and move to the next option.

7) When completed with setting preferences, press the small **MFD** knob to return the Navigation Map 1 page.

8) Repeat the above steps to set preferences for the remaining groups.

NOTE: *In the Map Options Setup section, the selected range is defined as the map range below which the display feature will be visible.*

Map Setup Options

Group	Selections
MAP	• Orientation (North Up, Track Up, DTK up, HDG up) • North Up At (Off to 2500 NM) • Auto Zoom (On or Off) • Land Data (On or Off) • Track Vector Length (Off to 20 mins) • Wind Vector (On or Off) • Nav Range Ring (On or Off) • Topo Data (On or Off) • Topo Scale (On or Off) • TERRAIN Data (On or Off) • TERRAIN Scale (On or Off) • Obstacle Viewing Range (Off to 50 NM) • Lat/Lon Viewing Range (Off to 2500 NM) • Field of View (On or Off)
WEATHER	• NEXRAD Data Viewing Range (Off to 2000 NM) • NEXRAD Cell Movement Range (Off to 2000 NM) • NEXRAD Legend • XM Lightning Viewing Range (Off to 2000 NM)
TRAFFIC	• Traffic Mode (Off, All Traffic, TA/PA, TA Only)
AVIATION	• SafeTaxi Viewing Range (Range: Off to 10 NM) • RWY Extension Range (Range: Off to 10 NM) • INT/NDB Viewing Range (Range: Off to 50 NM) • VOR Viewing Range (Range: Off to 500 NM) • Class B/TMA (Range: Off to 2000 NM) • Class C/TCA (Range: Off to 500 NM) • Class D (Range: Off to 500 NM) • Restricted (Range: Off to 500 NM) • MOA (Military) (Range: Off to 500 NM) • Other/Adiz (Range: Off to 500 NM) • TFR (Range: Off to 2500 NM) • Airways (Off, All, LO Only, HI Only)

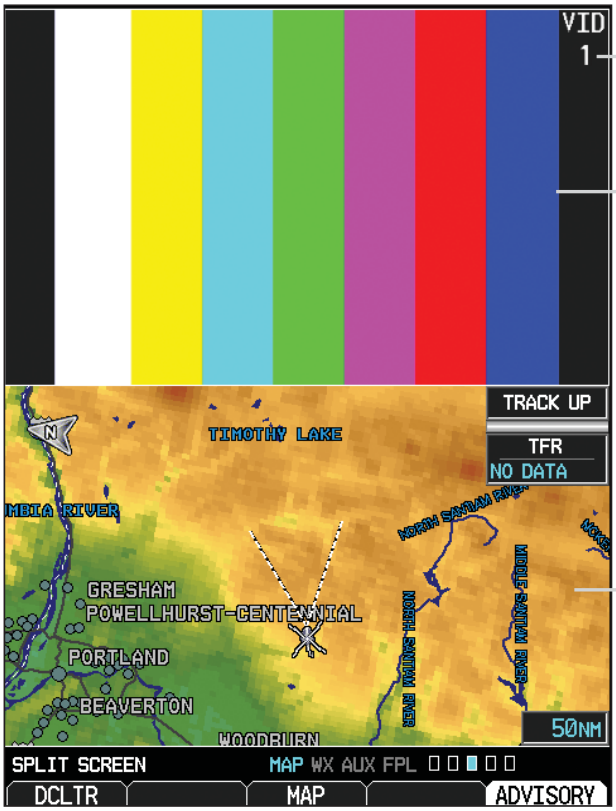
Split Screen Page (Optional)

Soft Keys Found on Split Screen Page

MAP	DCLTR	DCLTR-1	DCLTR-2
DCLTR-3	TRAFFIC	TOPO	TERRAIN

External Video is an optional function that displays video provided by an externally mounted video source on the aircraft.

1) While viewing the Map function, turn the small **MFD** knob to the third page of the map group.



Current Video Source

Display of External Video Source

Map Display

External Video

2) The External Video page will show the external video on the top half of the MFD and a Navigation Map will be shown on the lower half.

Traffic Map Page (Optional)

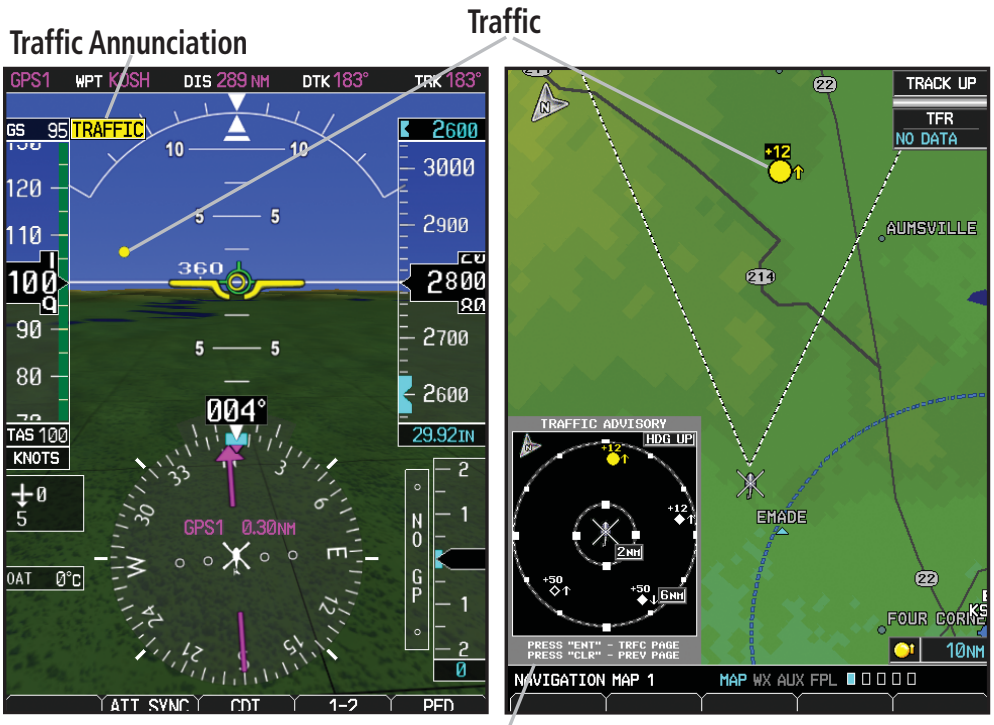
Soft Keys Found on Traffic Map Page

OPERATE | ALT MODE | BELOW | NORMAL | ABOVE

UNREST | STANDBY

Traffic Display

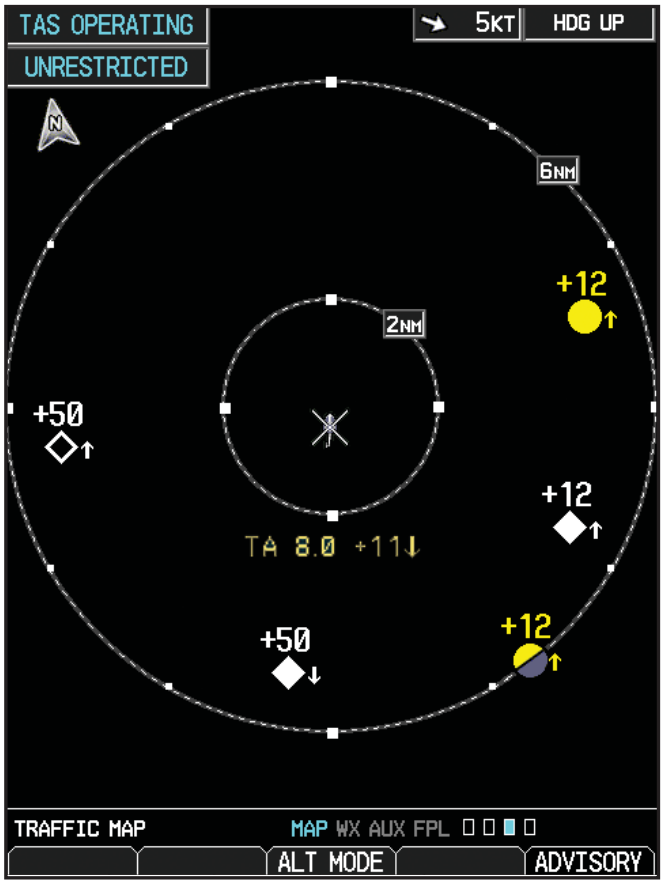
When a traffic alert is generated by an interface traffic system, the PFD will display a traffic annunciator and the MFD will have a pop-up screen displaying the detected traffic. To remove the pop-up, press the **CLR** key**.** Press the **ENT** key to go to the traffic page. The traffic pop-up window will be removed when the traffic alert is no longer active.



PFD Traffic Display

MFD Traffic Pop-Up Window

Displaying and Operating Traffic Advisory Systems (TAS)



Traffic Map - TAS

NOTE: *Depending on your traffic configuration, the OPERATE and STANDBY soft keys may not be available.*

10) Press the **ALT MODE** soft key to change what traffic is displayed. Pressing the **BELOW, NORMAL, ABOVE** or **UNREST** soft keys will determine what traffic is displayed. The selection is shown in the Altitude mode field. The values below define what each altitude mode displays, relative to the altitude of the aircraft.

Soft Key	Description
BELOW	Displays traffic from -9700 to +2700 ft
NORMAL	Displays traffic from -2700 to +2700 ft
ABOVE	Displays traffic from -2700 to +9700 ft
UNREST	All traffic is displayed (unrestricted) from +/-9700 feet

11) Press the **STANDBY** soft key to place the system in the Standby mode.

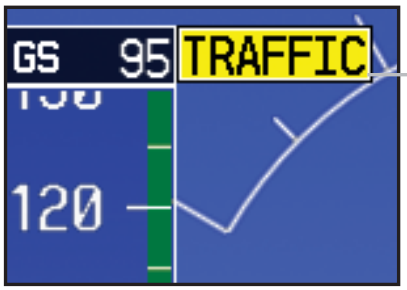
NOTE: *Some traffic systems will not enter standby mode while airborne.*

Test Mode (On Ground)

1) While viewing the Traffic Map Page of the Map Page Group, press the **MENU** key and select Test Mode from the menu.

2) Verify that a traffic message is shown next to the altitude tape on the PFD and that the traffic pop-up is displayed on the MFD.

After a few seconds, test mode is exited automatically by the traffic system.



Traffic Annunciation on PFD

TIS Traffic

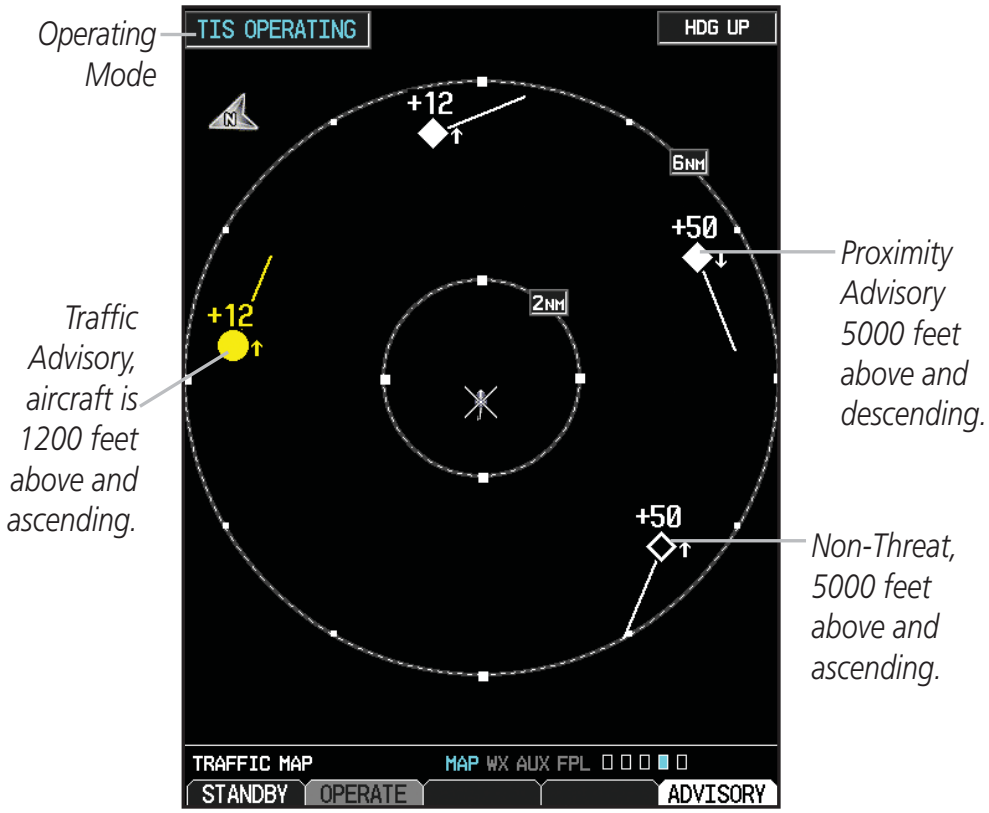
The Traffic Map Page is configured to show surrounding TIS traffic data in relation to the aircraft's current position and altitude, without clutter from the basemap. Aircraft orientation on this map is always heading up unless there is no valid heading.

TIS receives traffic information from ground stations, and is updated every five seconds. The G500H displays up to eight traffic targets within a 7.5-NM radius, from 3000 feet below to 3500 feet above the requesting aircraft. Traffic is displayed according to TCAS symbology using four different symbols.

Displaying TIS Traffic

While viewing the Traffic Page of the Map Page Group press the **OPERATE** soft key to begin displaying traffic. "TIS OPERATING" is displayed in the upper left hand corner of the MFD.

NOTE: *TIS is disabled when a Traffic Advisory System (TAS) is installed.*



Traffic Map - TIS

Terrain Page

Garmin provides the following G500H terrain selections, based upon your system configuration.

Soft Keys Found on Terrain Proximity Page

Soft Keys Found on Terrain-HSVT Page

WARNING: *Do not use TERRAIN-HSVT information for primary terrain avoidance. TERRAIN-HSVT is intended only to enhance situational awareness.*

NOTE: *Terrain data is not displayed when the aircraft latitude is greater than 75° North or 60° South.*

NOTE: *TERRAIN-HSVT is standard when the Synthetic Vision Technology (SVT) option is installed.*

- TERRAIN-PROXIMITY - is a non-TSO-C194 certified terrain awareness system. Do not confuse Terrain Proximity with HTAWS. HTAWS **is** TSO-C194 certified and Terrain Proximity **is not**. Terrain Proximity does not provide warning annunciations or voice alerts, it only provides color indications on map displays when terrain and obstacles are within a certain altitude threshold from the aircraft.
- TERRAIN-HSVT - is a non-TSO-C194 certified terrain awareness system. Do not confuse TERRAIN-HSVT with HTAWS. HTAWS is TSO-C194 certified and TERRAIN-HSVT **is not**. TERRAIN-HSVT provides terrain alerting functionality, including visual and aural alerting. Garmin TERRAIN-HSVT is provided with the Synthetic Vision functionality and not marketed separately. Garmin TERRAIN-HSVT is available in the GDU 620 v4.00 or later, when configured for Rotory Wing and SVT enabled.

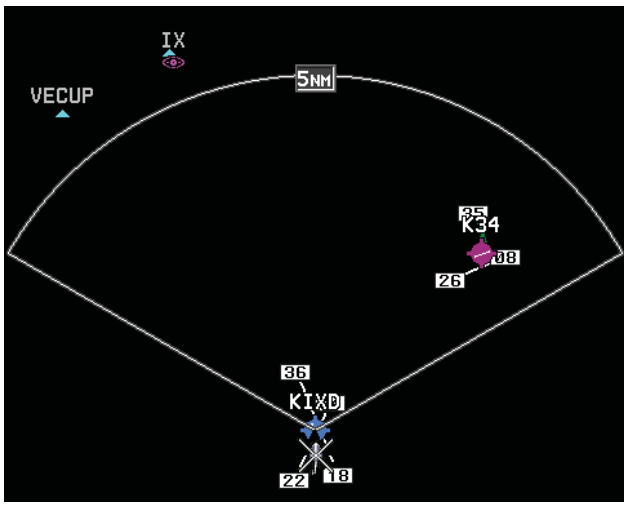
Viewing Terrain (without TERRAIN-HSVT)

NOTE: Obstacles will be removed from the Terrain pages when range (RNG) exceeds 10 NM.

While viewing the Terrain page of the Map Page Group, press the **360** or **ARC** soft key to select the desired view.

360 or ARC Soft Keys

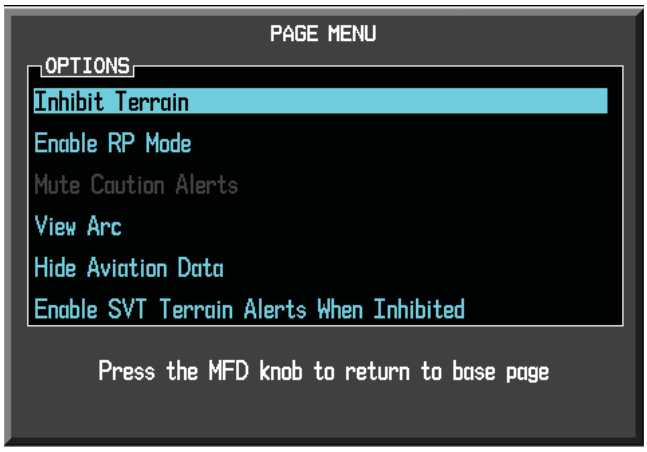
Press **MENU** to select whether to hide or show Aviation Data Overlay on the Terrain page. You are also able to select the desired view.



Aviation Data Overlay

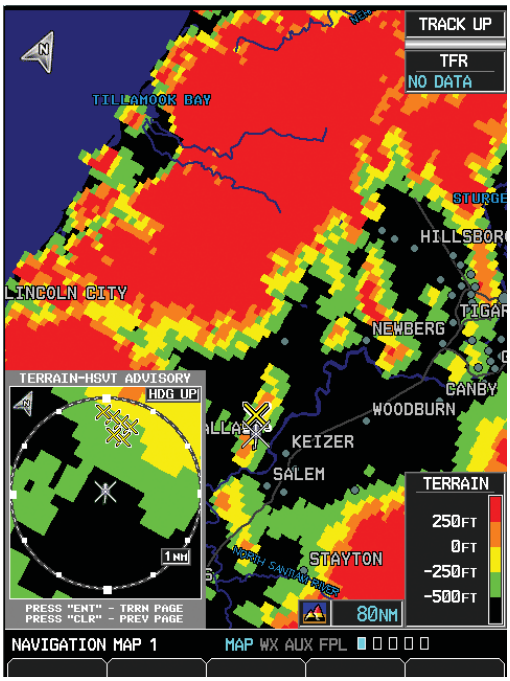
Viewing Terrain (with TERRAIN-HSVT)

Press **MENU** for selections to cofigure the Terrain-HSVT page. Turn the small **MFD** knob to move through the selections. Press **ENT** to confirm and exit.



Menu Option	Description
Inhibit Terrain	Does not display terrain warnings.
Enable RP Mode	Reduces the warning alerting thresholds and eliminates the caution alerts.
Mute Caution Alerts	Available when a caution alert is generated. When pressed during a caution alert, the aural alert will be muted.
View Arc (or 360°)	View terrain in arc or 360°.
Hide (Show) Aviation Data	Hide or show aviation data overlay.
Enable SVT Terrain Alerts When Inhibited	Will display SVT Terrain shading if "Inhibit Terrain" is selected.

Terrain Pop-Up Alerts



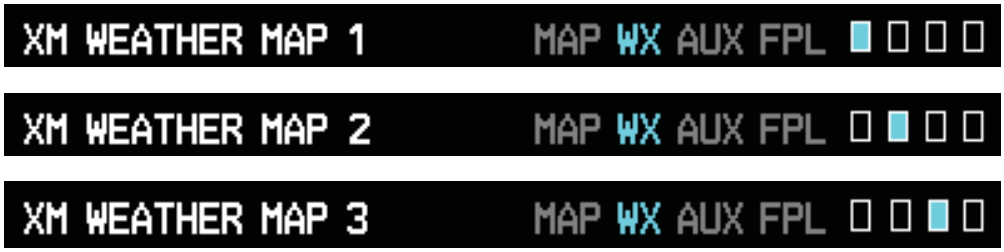
TERRAIN-HSVT Pop-Up Alert on MFD

TERRAIN-HSVT™ Pop-Up Alert

TERRAIN-HSVT alerts typically employ a CAUTION or a WARNING alert severity level, or both. When an alert is issued, visual annunciations are displayed and aural alerts are simultaneously issued. Refer to the Alerts section of this guide for more information on alerts, both visual and aural. When an alert is issued, annunciations appear on the PFD and MFD. If the TERRAIN-HSVT Page is not displayed at the time, a pop-up alert appears on the MFD. To acknowledge the pop-up alert and return to the currently viewed page, press the **CLR** key. To acknowledge the pop-up alert and go to the TERRAIN-HSVT page, press the **ENT** key.

WX Group

XM Weather Map Pages



Soft Keys Found on XM Weather Map Pages

LEGEND | SRFC TIME | WIND DOWN | WIND UP

NOTE: *The preferences set on XM Weather Map pages are unique to each page.*

Customizing the Weather Map

1) While viewing any of the XM Weather Map pages in the WX Page Group, press the **MENU** key to display the page menu. Turn the large **MFD** knob to Weather Setup. Press **ENT**.
2) Turn the large **MFD** knob to select desired item to change. Turn the small **MFD** knob to set the preference of the weather feature option.
3) Press **ENT** to confirm your selection.
4) To return to the XM Weather Map page, press the small **MFD** knob.

Weather Items

XM Weather Page Menu - Weather Setup	
Menu Item	**Selections Available**
Map Orientation	North Up, Track Up
NEXRAD Data Viewing Range	Range: Off, 10 NM to 2000 NM
NEXRAD Legend	On, Off
Echo Top Data Viewing Range	Range: Off, 10 NM to 2000 NM
Cloud Top Data Viewing Range	Range: Off, 10 NM to 2000 NM
Lightning Data Viewing Range	Range: Off, 10 NM to 2000 NM
Cell Mov Data Viewing Range	Range: Off, 10 NM to 2000 NM
SIG/Air Viewing Range	Range: Off, 10 NM to 2000 NM
METAR Data Viewing Range	Range: Off, 500 FT to 2000 NM
Surface Data Viewing Range	Range: Off, 10 NM to 2000 NM
Surface Data Time	Range: Current, 12 HR to 48 HR
Frz Lvl Data Viewing Range	Range: Off, 10 NM to 2000 NM
Winds Aloft Data Viewing Range	Range: Off, 10 NM to 2000 NM
Winds Aloft Altitude	Range: Surface, 3000 FT to 42000 FT
County Data Viewing Range	Range: Off, 10 NM to 2000 NM
Cyclone Data Viewing Range	On, Off

NOTE: *Due to similarities in color schemes, it is not possible to display NEXRAD Data and Echo Top Data at the same time.*

NOTE: *Due to similarities in color schemes, it is not possible to display Echo Top Data and Cloud Top Data at the same time.*

Weather Legend

A mini-legend can be displayed on the XM Weather Map page upper right hand corner for the weather products you selected in the setup menu.

Mini-Legend

To view a full page legend:

1) While viewing any of XM Weather Map pages in the WX Page Group, press the **LEGEND** soft key.
2) Turn the small **MFD** knob or large **MFD** knob to view the entire legend.
3) Exit and return to the map page by pressing either the **LEGEND** soft key, **ENT** key, or the small **MFD** knob.

Displaying Surface Data and Winds Aloft

While viewing any of the pages in the WX Page Group, if in the setup you chose to display SURFACE DATA VIEWING RANGE, the **SRFC TIME** soft key will be available. Pressing the **SRFC TIME** soft key will cycle through the age of the information in 12 hour increments from CURRENT to 48 HR.

While viewing any of the pages in the WX Page Group, if in the setup you chose to display WINDS ALOFT DATA VIEWING RANGE, the **WIND DOWN** and **WIND UP** soft keys will be available. To view winds aloft, press the **WIND DOWN** or **WIND UP** soft keys to cycle through (up or down) the winds aloft altitudes.

Garmin Flight Data Services (GFDS) Map Pages

Soft Key Found on GFDS Weather Map Pages

LEGEND

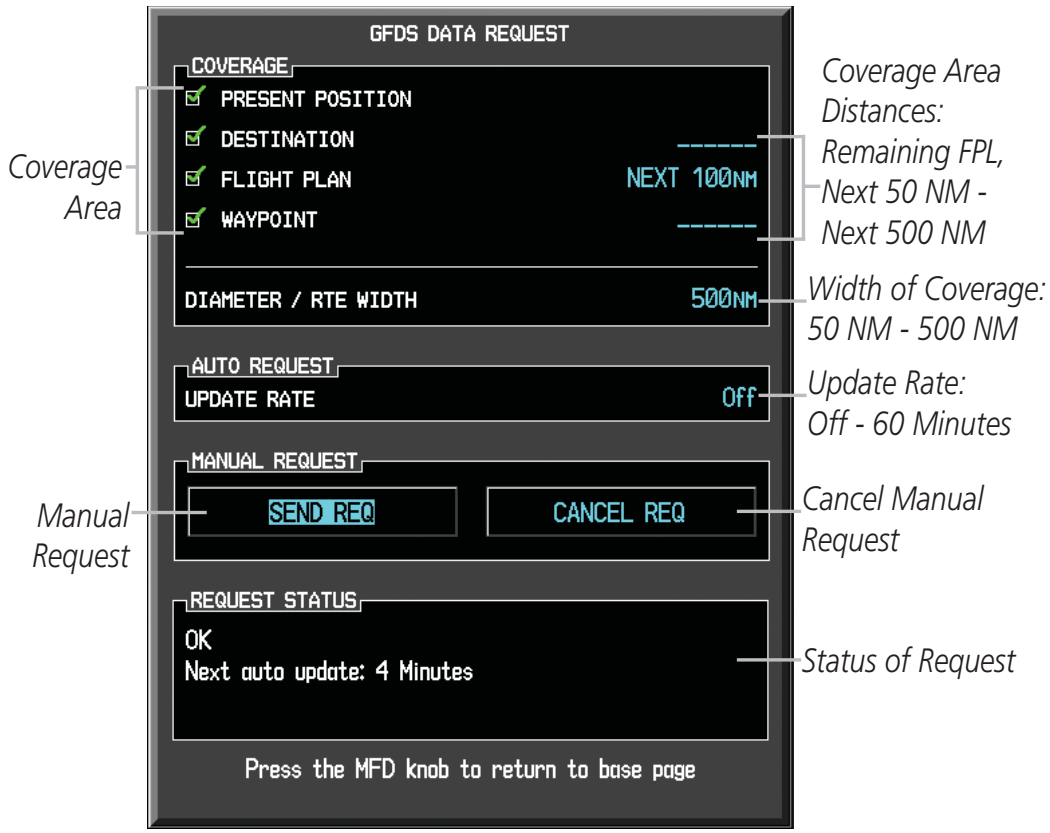
Requesting Garmin Flight Data Services (GFDS)

Prior to requesting GFDS information, an access code and system ID will need to be assigned. For more information on GFDS and how to register, see the latest revision of the G500H Pilot's Guide, P/N 190-01150-02.

After registering you are able to display GFDS data:

1) While viewing any one of the three pages of the WX Group, press the **MNU** button.

2) Highlight GFDS Data Request and press the **ENT** button to display the GFDS DATA REQUEST page.



GFDS Data Request Page

Configuring GFDS Data Request Page

1) Turn the large **MFD** knob to the Coverage box. Press **ENT** to select or deselect the coverage areas. Selected coverage areas are denoted by a green check mark.
2) Turn the large **MFD** knob to the Auto Request box and press ENT to change the update rate to either OFF or ON.
3) Turn the large **MFD** knob to the Manual Request box and press ENT to either send request or cancel current request.
4) Press the small **MFD** knob to return to the GFDS page.

Aux Group

External Video Page (Optional)

Soft Keys Found on System Setup Page

VIDEO 1	VIDEO 2	SETUP

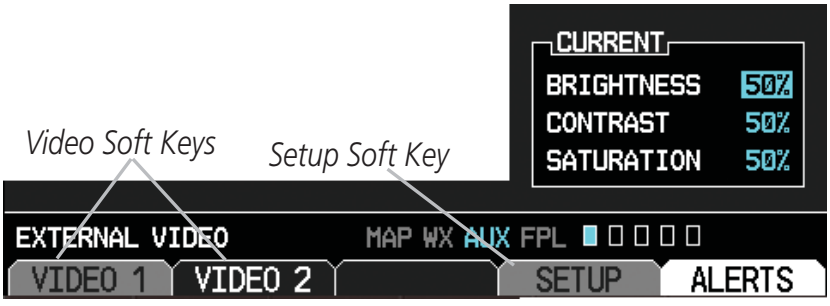
Setting Brightness, Contrast, and Saturation Levels

The following steps can be applied to either Video 1 or Video 2.

1) While viewing the External Video Page of the Aux Page Group, press the desired video soft key **(VIDEO 1** or **VIDEO 2)**.
2) Press the **SETUP** soft key. The BRIGHTNESS in the CURRENT box will flash. Turn the small **MFD** knob to change the brightness of the video output.
3) Turn the large **MFD** knob to CONTRAST and turn the small **MFD** knob to change the contrast level of the video output.
4) Turn the large **MFD** knob to SATURATION and turn the small **MFD** knob to change the saturation level of the video output.
5) Press the small **MFD** knob to exit out of the setup mode.

Setting the Zoom Level of the Video Output

Press the **RNG** (Range) keys to zoom in and out. The range of the zoom feature is 1x up to 10x.



External Video Setup

System Setup Page

Soft Keys Found on System Setup Page

DFLT UNIT | RA TEST | DFLT SPD

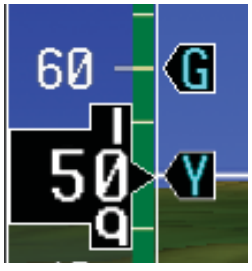
Setting Brightness and Mode

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. The LEVEL in the DISPLAY BRIGHTNESS box will flash.
2) Turn the small **MFD** knob to brighten or dim the display.
3) Press **ENT** when you reach the desired level.

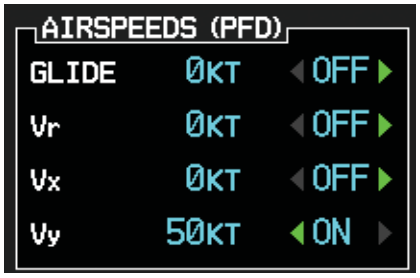
NOTE: *When LEVEL is changed, the MODE defaults to MANUAL. If MODE is set the AUTO, the LEVEL will adjust in response to ambient light or a lighting bus, as configured during installation.*

Setting Airspeed References

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to move to the desired field in the AIRSPEEDS box.
2) Turn the small **MFD** knob to change the speeds and to also turn the speeds ON or OFF. When the speeds are turned ON they are shown near the bottom of the Airspeed Tape if airspeed is zero.



V Speed References on Airspeed Tape



Airspeed References

NOTE: *At any time during the setting of your airspeed references, pressing the* **DFLT SPD** *soft key will restore the unit to its initial configuration.*

Selecting Wind Vector Styles

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the field in the PFD OPTIONS box.

2) Turn the small **MFD** knob to select the styles available for displaying wind vectors. Each style shows direction and velocity of the wind.

Style 1 **Style 2** **Style 3** **Style 4**

Style 1 Displays headwind and crosswind components

Style 2 Displays total wind direction and speed.

Style 3 Displays total wind direction with headwind and crosswind speed components.

Style 4 Displays total wind direction in degrees with wind speed.

Setting Time Format

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to the desired field in the DATE/TIME box. The only items that are able to be modified is the TIME FORMAT and TIME OFFSET. The date and time are coordinated with the GPS.

2) Turn the small **MFD** knob to display your choices of LOCAL 12hr, LOCAL 24hr, and UTC (Universal Time, Coordinated). Turn the small **MFD** knob to the desired format and press **ENT** to confirm your selection.

Setting Time Offset

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to the time offset portion of the DATE/TIME box.

2) Use the small **MFD** knob and large **MFD** knob to edit the time offset.

3) Press **ENT** to confirm your selection. Press the small **MFD** knob to exit the editing mode.

To convert UTC to local time, a time offset must be chosen. See the table below to determine the time offset.

Time Zone	Standard Local Time Offset	Daylight Saving Time Offset
Atlantic	-4 hours	-3 hours
Eastern	-5 hours	-4 hours
Central	-6 hours	-5 hours
Mountain	-7 hours	-6 hours
Pacific	-8 hours	-7 hours
Alaskan	-9 hours	-8 hours
Hawaiian	-10 hours	-9 hours

MFD Display Units

NOTE: At any time during the setting of your preferences, pressing the **DFLT UNIT** *soft key will restore the settings for brightness, synchronization, time format, time offset and display units to the initial settings.*

NOTE: The corresponding GNS must also be set to match the selection chosen (distance, speed, NAV angle, pressure, and temperature units) on the GDU 620.

Setting Distance and Speed Units

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the MFD DISPLAY UNITS box.
2) Turn the small **MFD** knob to display your choices of IMPERIAL, METRIC, and NAUTICAL units for distance and speed displayed on MFD. Press **ENT** to confirm your selection. Press the small **MFD** knob to exit editing mode.

Setting Altitude and Vertical Speed Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the MFD DISPLAY UNITS box.
2) Turn the small **MFD** knob to display your choices of FEET or METRIC units for altitude and vertical speed. Press **ENT** to confirm your selection. Press the small **MFD** knob to exit editing mode.

Setting NAV Angle

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.
2) Turn the small **MFD** knob to display your choices of MAGNETIC(°) or TRUE (°) measurement for navigating. Press **ENT** to confirm your selection and move to the next preference or press the small **MFD** knob to exit editing mode.

Setting Pressure Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.
2) Turn the small **MFD** knob to display your choices of INCHES(IN) or HECTOPASCALS (HPA) for your barometric pressure units. Press **ENT** to confirm your selection and move to the next preference or press the small **MFD** knob to exit editing mode.

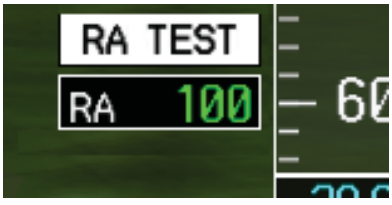
Setting Temperature Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.
2) Turn the small **MFD** knob to display your choices of CELSIUS(°C) or FAHRENHEIT(°F) for the temperature. Press **ENT** to confirm your selection and press the small **MFD** knob to exit editing mode.

Radar Altimeter Test

NOTE: Not all radar altimeters have the test function.

Press the **RA TEST** soft key (if available) to activate the radar altimeter test. An **RA TEST** annunciation will be displayed on the PFD. If the unit fails the self-test, the RA FAIL annunciation will appear on the PFD. For more information on the Radar Altimeter and its settings, see the latest revision of the G500 Pilot's Guide, P/N 190-01102-02.



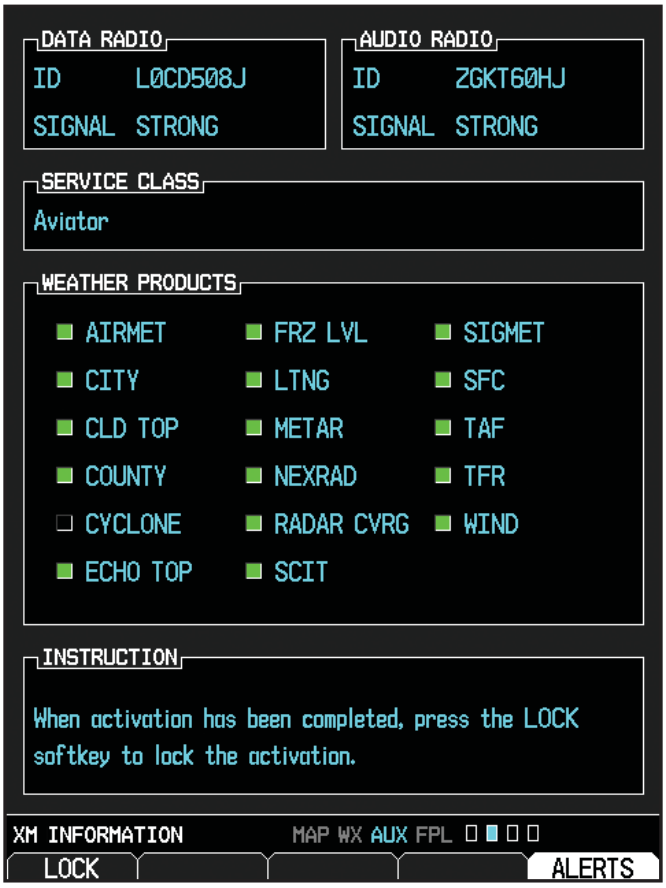
RA TEST Annunciation on PFD

XM® Information Page (Optional)

Soft Key Found on XM Information Page

LOCK

While viewing the XM Information page of the Aux Group, turn the small **MFD** knob to display the XM Information screen. This page contains the Data Radio and Audio Radio IDs. The only option on this page is to **LOCK** in your information once your subscription has been activated.



XM Information Page

XM® Radio Page (Optional)

Soft Keys Found on XM Radio Page

CATGRY	CHNL	CH +	CH -	DIR CH
PRESETS	VOL	VOL +	VOL -	MUTE
CAT +	CAT -	PS1 TO PS15		MORE
		ALL		

Selecting a Channel

1) While viewing the XM Radio page of the Aux Page Group, press the small **MFD** knob and then turn the small **MFD** knob to highlight the desired channel.
2) Press **ENT** to make the highlighted channel the Active Channel.
3) Press the small **MFD** knob to end editing.
4) Press **CHNL** and then the **CH+** or **CH-** soft keys to increment up or down one channel at a time in the active category.
5) Press **CHNL** and then the **DIR CH** soft key to directly select a channel in the active channel field. Turn the small **MFD** knob and large **MFD** knob to select desired channel.
6) Press **ENT** to save the selection or press the small **MFD** knob to cancel selection.

Selecting a Channel within a Category

1) Press **CATGRY** to highlight the category window.
2) Press **CAT+** or **CAT-** to cycle through the different categories or turn the small **MFD** knob to the category and press **ENT**.
3) Turn the small **MFD** knob to move to the desired channel.
4) Press **ENT** to make that channel the active channel.
5) Press the small **MFD** knob to end editing.

Volume

While viewing the XM Radio page of the Aux Group, press the **VOL** soft key. Press the **VOL+** or **VOL-** soft keys or turn the small **MFD** knob to increase or decrease radio volume. Press the small **MFD** knob when done adjusting. To mute the radio, press the **MUTE** soft key. To restore the radio volume, press **MUTE** again or the **VOL+** or **VOL-** soft keys.

Storing a Preset Channel

While viewing the XM Radio page, you may set a preset for the Active Channel. Press the **PRESETS** soft key. Press and hold a preset soft key, such as **PS1** until it blinks. You are able to preset up to 15 channels.

Recalling a Preset Channel

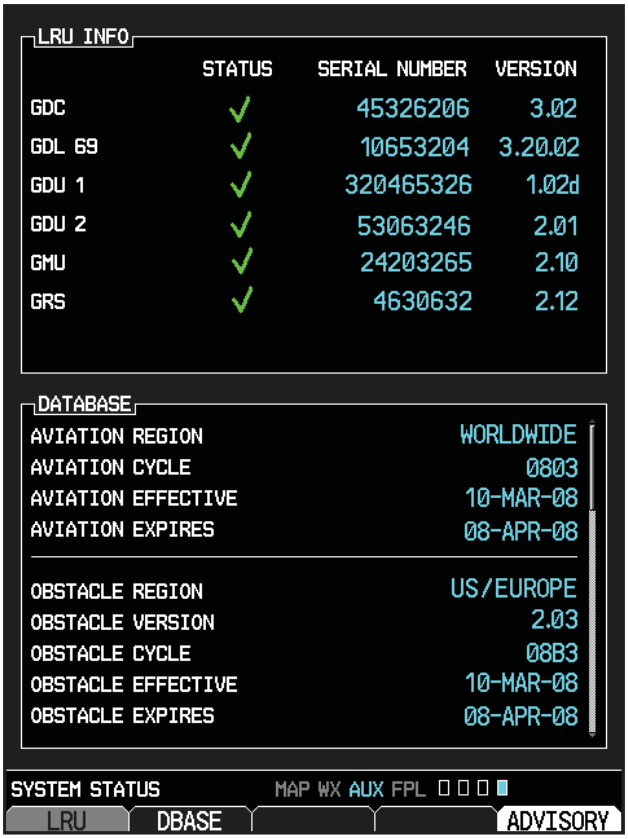
While viewing the XM Radio page, press the **PRESETS** soft key and press the preset soft key for the desired stored channel, such as **PS1**. To move to the next group of presets, press the **MORE** soft key.

System Status Page

Soft Keys Found on System Status Page

LRU | DBASE

The System Status page of the AUX Page group shows the status, serial number, and version of LRUs as well as the effectivity information. There are no menu options. In the LRU Status column, a green check means the unit is present and operating properly, while a red X indicates an absence or failure. This page is for informational purposes and there are no items that are able to be modified.



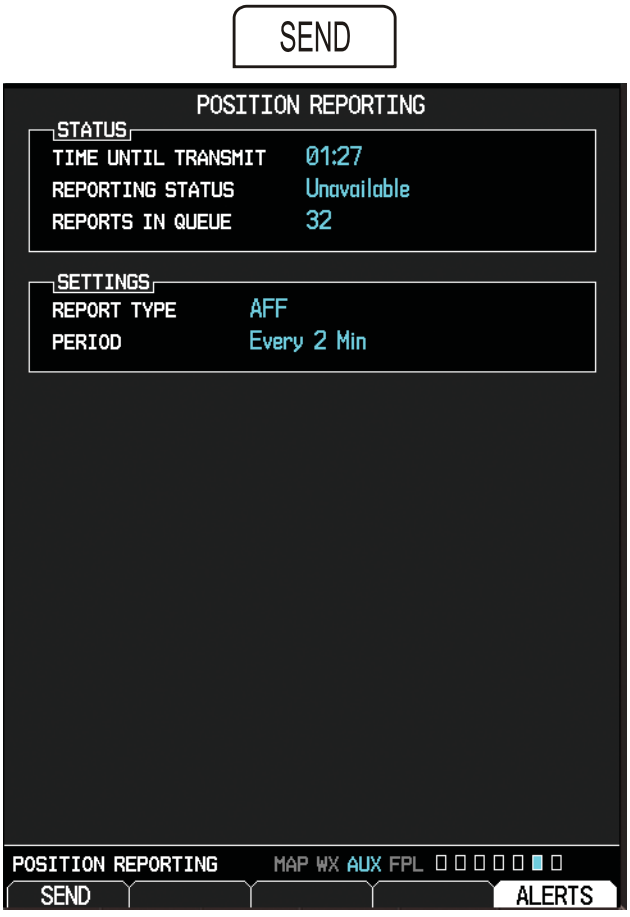
System Status Page

1) While viewing the System Status page of the Aux Page Group, press the **LRU** soft key and turn the small **MFD** knob to scroll through the status, serial number and version of each LRU. Press the small **MFD** knob to exit.

2) Press the **DBASE** soft key and turn the small **MFD** knob to view the list of the databases that are loaded. Press the small **MFD** knob to exit.

Position Reporting Page

Soft Key Found on Position Reporting Page



Position Reporting Page

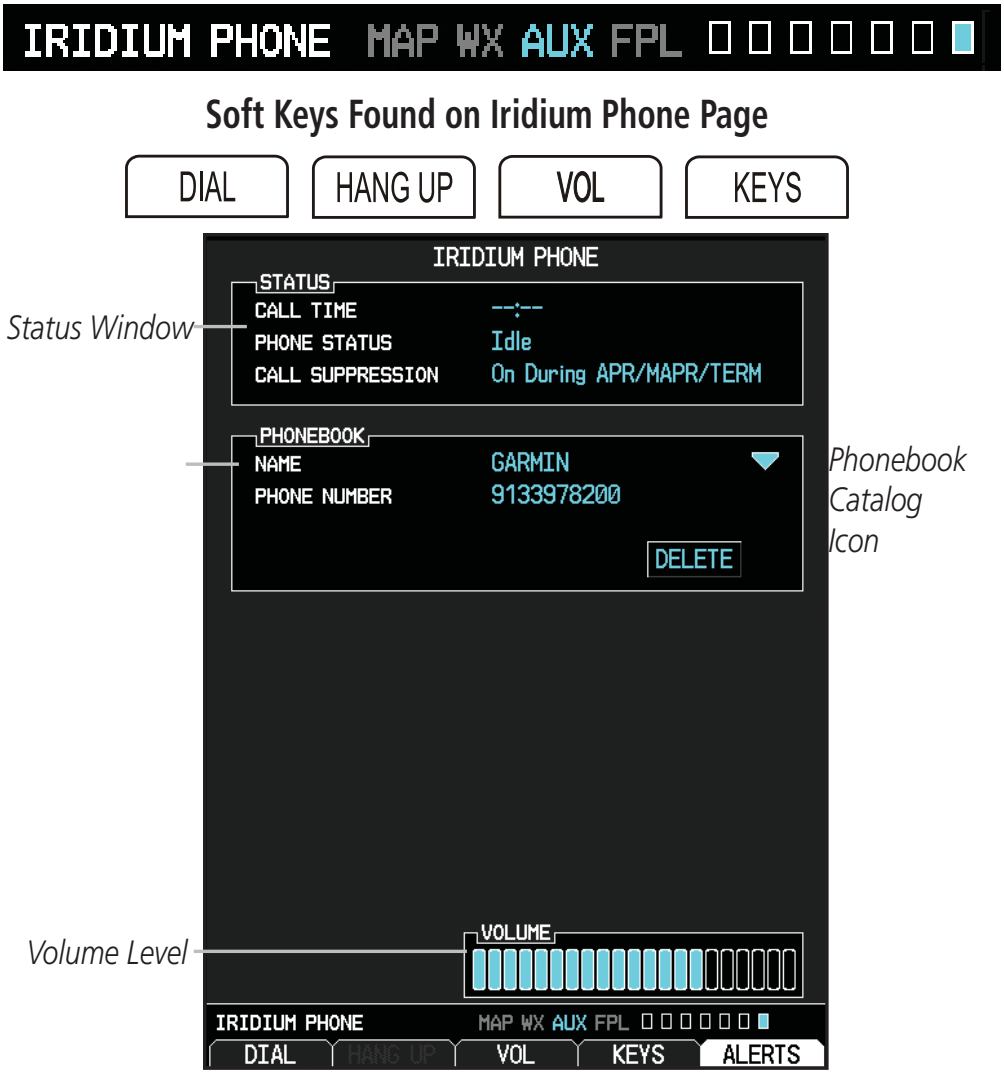
Position Reporting Status

The Status window shows the time until the next data transmission and the status of the reporting system.

Settings Window

1) While viewing the Position Reporting page, press the small **MFD** knob.
2) Turn the large **MFD** knob to change the report type to either AFF (Automatic Flight Following) or Standard.

Iridium® Phone Page



Iridium Phone Page

For detailed use of the Iridium Phone system, see the latest revision of the G600 Pilot's Guide, P/N 190-00601-02.

Call Suppression

1) While viewing the Iridium Phone page, press the small **MFD** knob.
2) Turn the large **MFD** knob to select the Call Suppression type of Off, On, or On during APR/MAPR/TERM.

Creating Entries into Phonebook

1) While viewing the Iridium Phone page of the Aux Group, press the small **MFD** knob to activate the cursor.
2) Turn the large **MFD** knob to highlight the phonebook catalog icon. Turn the small **MFD** knob to display phonebook.
3) If the name already exists, it will be displayed in the drop down menu. If you are adding a new entry, highlight, (New Entry). Press **ENT.**
4) Turn the small **MFD** knob to enter each letter of the name. Press **ENT.**
5) Turn the large **MFD** knob to move to enter the phone number. Turn the small **MFD** to enter each number. Press **ENT.**

Deleting Entries into Phonebook

1) Press the small **MFD** knob to activate the cursor and then turn the large **MFD** knob to select the Phone Book Catalog icon.
2) Turn the small **MFD** knob to display the contents of the Phone Book Catalog and highlight the desired entry. Press **ENT** to select the catalog entry.
3) Turn the large **MFD** knob to highlight the **DELETE** key. Press **ENT** to delete the catalog entry. Press the small **MFD** knob again to cancel the selection cursor.

Editing a Phone Book Catalog Entry

1) Press the small **MFD** knob to activate the cursor and then turn the large **MFD** knob to select the Phone Book Catalog icon.
2) Turn the small **MFD** knob to display the contents of the Phone Book Catalog and highlight the desired entry. Press **ENT** to select the catalog entry.
3) Use the large **MFD** knob and small **MFD** knobs to make changes to the name or number. Press **ENT** to save the changes. Press the small **MFD** knob again to cancel the selection cursor.

Making a Phone Call

While viewing the Iridium Phone page, enter a phone number using the **KEYS** soft key, rotary knobs, or select one from the Phone Book catalog.

1) Press the small **MFD** knob and turn the large **MFD** knob to highlight the phone number area. Press the **KEYS** soft key and enter the number. It will be necessary to enter a 1 before the phone number. When finished entering the number you want to call, press the **DIAL** key.
2) After completing the call, press the **HANG UP** key.

Flight Plan Group

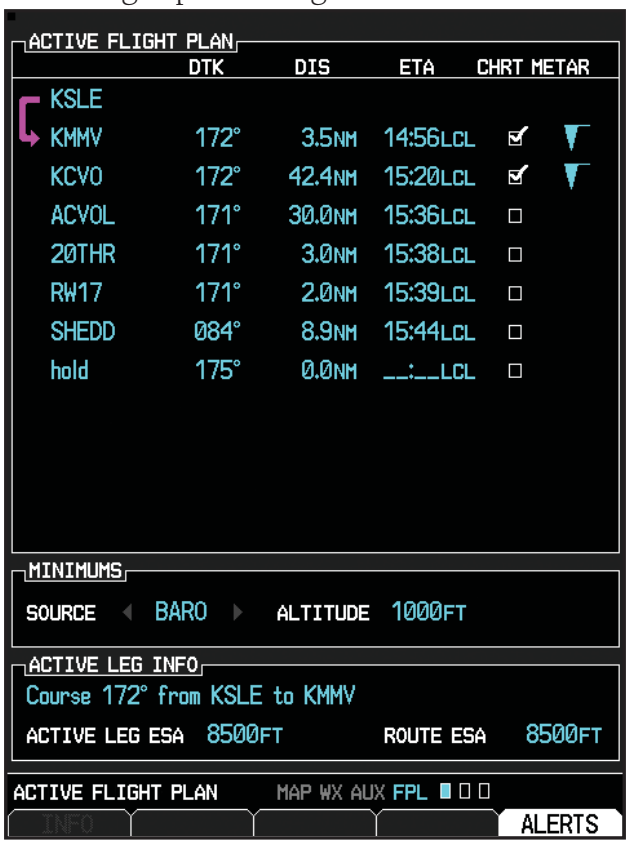
Active Flight Plan Page

Soft Keys Found on Active Flight Plan Page

INFO

Viewing Your Active Flight Plan

The active flight plan (as received from the selected GNS unit) is shown on the first page of the Flight Plan page group. No changes to the flight plan can be made from the GDU 620. All flight plan changes must be made from the GNS unit.



Active Flight Plan Page

1) While viewing the Active Flight Plan page of the FPL Page Group, press the small **MFD** knob and then turn the large **MFD** knob to highlight waypoints in the flight plan.
2) Press the **INFO** soft key to view information about the highlighted waypoint.
3) Press the small **MFD** knob to return to the Active Flight Plan page.

Waypoint Information Page

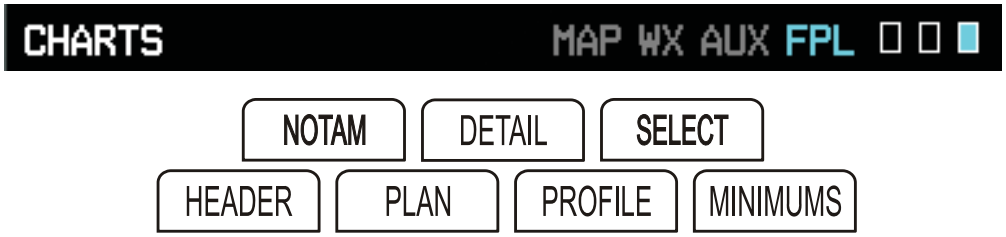
Soft Keys Found on Waypoint Information Page

Waypoint Information Page

1) While viewing the Waypoint Information page of the FPL Page Group, press the small **MFD** knob and then turn the small **MFD** knobs to enter or select the waypoint. You can also turn the small **MFD** knob counterclockwise to obtain drop down menus for FPL, Nearest, and Recent.
2) Press the **RWY/FREQ** soft key to view runway and frequency information about the waypoint.
3) Press the **APT DIR** soft key (if available) to view the airport directory information such as facility hours, noise abatement, pattern, etc. Press the small **MFD** knob to scroll down the page.
4) Press the **WX** soft key (if available) to view METARs or TAFs for the waypoint.

Charts Page (Optional)

Soft Keys Found on Charts Page



Setting Minimums

1) While viewing the Charts page of the FPL Page Group, **MENU** key to display the Options menu and press **ENT.**
2) Turn the small **MFD** knob to select the source, BARO or RAD ALT. Press the **ENT** key.
3) Turn the small **MFD** knob to select the altitude. Press **ENT** to set the altitude.

Changing Day/Night View

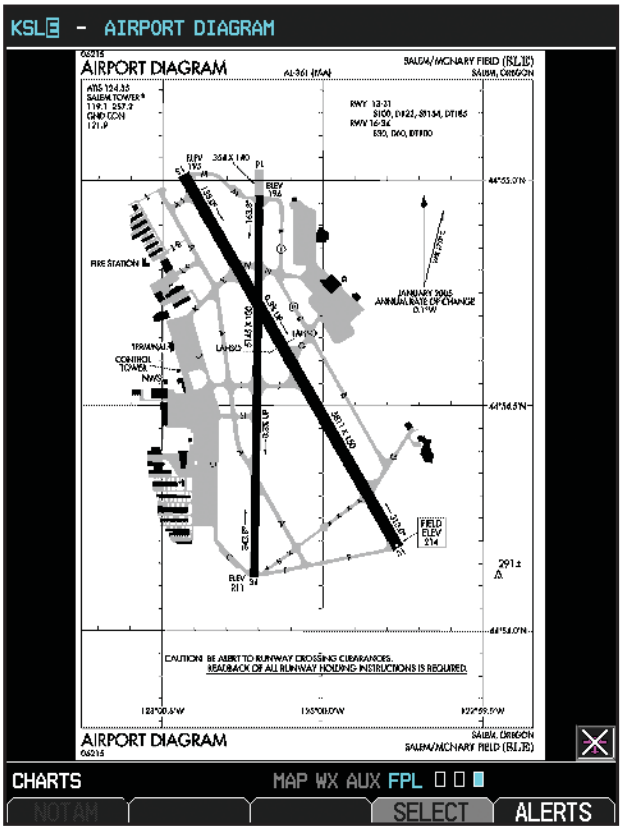
1) While viewing the Charts page of the FPL Page Group, press the **MENU** key to display the Options menu.
2) Turn the small **MFD** knob to Chart Setup. Press **ENT**. The Color Scheme option will be highlighted.
3) Turn the small **MFD** knob to select Day - Auto - Night. Press the small **MFD** knob to save the selected value and return to the Charts page.
4) If "Auto" is selected, turn the large **MFD** knob to highlight the Display Level Brightness value. Turn the small **MFD** knob to change the display level value for which the display will automatically switch from Day/Night brightness.
5) Press the **MFD** knob to save the selected value.

Viewing Charts and Panning

1) While viewing the Charts page of the FPL Page Group, press the **RNG** (Range) keys to zoom in and out.
2) Press the small **MFD** knob to enter the panning mode and activate scroll bars on the edges of the chart.
3) Turn the large **MFD** knob to move around the chart horizontally and turn the small **MFD** knob to move vertically.
4) Press the small **MFD** knob to cancel the scroll bars and exit panning.

Viewing NOTAMs

In the event there is an active NOTAM (Notice to Airmen) for a particular chart, the **NOTAM** soft key will be available. To view the information press the **NOTAM** soft key.



Charts Page

Selecting a Chart

1) While viewing the Charts page of the FPL Page Group, press the **SELECT** soft key to change the airport or chart.
2) Turn the small and large **MFD** knobs to select the airport identifier and press **ENT** to accept the selected airport.
3) Turn the large **MFD** knob to select the desired chart.
4) Press **ENT** to display the desired chart.

NOTE: *The chart for the selected destination airport or approach is automatically loaded. If the destination airport is in the flight plan, the chart page will default to the nearest airport.*

Viewing Details of ChartView™ Charts

1) While view the Charts page of the FPL Page Group, press the **DETAIL** soft key.
2) Press the **HEADER**, **PLAN**, **PROFILE**, or **MINIMUMS** soft keys to view detailed sections for the chart for those topics. An aircraft icon will show in the lower right corner of the display if your aircraft is in the chart area. The icon will have an "X" through it if the aircraft is not in the chart area or the GPS fix is lost.

Selecting Other Charts

You are able to choose other charts to display based on your flight plan (FPL), charts of the nearest airport (NRST) or your most recently selected airport (RECENT).

1) While viewing the Charts page of the FPL Page Group, press the **SELECT** soft key.
2) Turn the small **MFD** knob counterclockwise.
3) Turn the small **MFD** knob to show FPL, NRST, or RECENT.
4) Turn the large **MFD** knob to highlight the desired airport, then press **ENT.**

Display Charts From Flight Plan

Display Charts Of Nearest Airport

Display Charts From Recent Choices

Chart Information

FliteCharts®

FliteCharts resemble the paper version of FAA published terminal procedures charts. The charts are displayed with high-resolution and in color for applicable charts. The database contains procedure charts for the United States only. This database is updated on a ***28-day cycle***. FliteCharts is disabled 180 days after the expiration date and is no longer available for viewing upon reaching the disable date.

SafeTaxi® (Optional)

SafeTaxi is an enhanced feature that gives greater map detail when zooming in on airports at close range. The airport display on the map reveals runways with numbers, taxiways with identifying letters/numbers, and airport landmarks including ramps, buildings, control towers, and other prominent features. Resolution is greater at lower map ranges. When the aircraft location is within the screen boundary, including within SafeTaxi ranges, an airplane symbol is shown on the navigation map views for enhanced positional awareness.

These diagrams aid in following ground control instructions by accurately displaying the aircraft position on the map in relation to taxiways, ramps, runways, terminals, and services. This database is updated on a ***56-day cycle***.

ChartView™ (Optional with Enablement Card)

ChartView resembles the paper version of Jeppesen terminal procedures charts. The charts are displayed in full color with high resolution. The MFD depiction shows the aircraft position on the moving map in the plan view of approach charts and on airport diagrams.

The ChartView database is updated on a ***14-day cycle***. ChartView is disabled 70 days after the expiration date and is no longer available for viewing upon reaching the disable date.

Alerts

NOTE: *Contact your Garmin dealer for service if any of the following alerts appear.*

On Screen Alerts

Alert	Description
AHRS1 GPS	AHRS 1 not receiving any GPS information.
	AHRS 1 is operating exclusively in no-GPS mode.
	AHRS 1 is using the backup GPS information.
AHRS1 SRVC	AHRS1 magnetic field model needs update. This appears on the ground only.
AHRS1 TAS	AHRS is not receiving true airspeed from ADC.
CAL LOST	Registry reports that the GDU 620 has lost calibration data.
CNFG MISMATCH	GDU 1-2 airframe configuration settings disagree.
CNFG MODULE	Failure of configuration module.
DATA LOST	Pilot stored data was lost. Recheck data and settings.
DIAG MODE	System is in Diagnostic Mode.
FAN 1/2 FAIL	Cooling fan #1 or #2 has failed.
GATE MODE	Automated testing is on.
GEO LIMITS	AHRS too far North/South, no magnetic compass.
GPS1/2 FAIL	No GPS1 or GPS2 data is available.
GPS(1/2) PPS FAIL	The PPS signal has not been received in more than 5 seconds.
GSR FAIL	GSR power discrete is on and GSR status discrete is off.
	The Iridium interface reports a timeout.
HDG FAULT	AHRS 1 magnetometer fault has occurred.
HDG LOST	HDG features disabled or defaulted to GPS1 TRK.
<LRU> CONFIG	Error in configuration of specific LRU, where <LRU> denotes specific LRU.
<LRU> COOLING	Specific LRU has poor cooling, reducing power usage.
<LRU> DB ERR	Database for specific LRU is corrupt.

Alert	Description
<LRU> SERVICE	Specific LRU needs service.
<LRU> VOLTAGE	<LRU> has low voltage reducing power usage.
MANIFEST	GDU has received product data for an LRU that should have a manifest entry, but is not in the manifest.
NAV1/2 FAIL	No navigation receiver #1 or #2 data.
SIMULATOR	Sim Mode is active. Do not use for navigation.
SVT DISABLED	Out of available terrain region.
	Terrain DB resolution too low.
SW MISMATCH	GDU software version strings to no match. Xtalk is off.
TDB DISABLED	Airframe does not support terrain database.
TRK LOST	GPS1 TRK lost. HSI defaulted to GPS2 TRK.
TRF STBY	Traffic device is in standby mode while airborne.
TRAFFIC FAIL	Traffic device has failed.

Terrain-HSVT™ Alerts

FLTA Terrain Caution (RTC-C, ITI-C)		"Caution, Terrain, Terrain"
FLTA Terrain Warning (RTC-W, ITI-W)		"Warning, Terrain, Terrain"
FLTA Obstacle Caution (ROC-C, IOI-C)		"Caution, Obstacle, Obstacle"
FLTA Obstacle Warning (ROC-W, IOI-W)		"Warning, Obstacle, Obstacle"

Symbols

Map Page Symbols

Symbol	Description
	Unknown Airport
	Non-towered, Non-serviced Airport
	Towered, Non-serviced Airport
	Non-towered, Serviced Airport
	Towered, Serviced Airport
	Soft Surface, Serviced Airport
	Soft Surface, Non-serviced Airport
	Private Airport
	Heliport
	Intersection
	LOM (compass locator at outer marker)
	NDB (Non-directional Radio Beacon)
	VOR
	VOR/DME
	ILS/DME or DME-only
	VORTAC
	TACAN

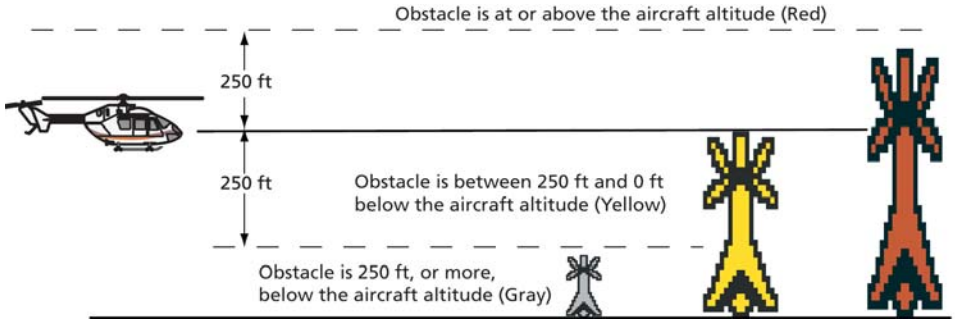
SafeTaxi® Symbols

Symbol	Description
	Helipad
	Airport Beacon
	Under Construction Zones
	Unpaved Parking Areas

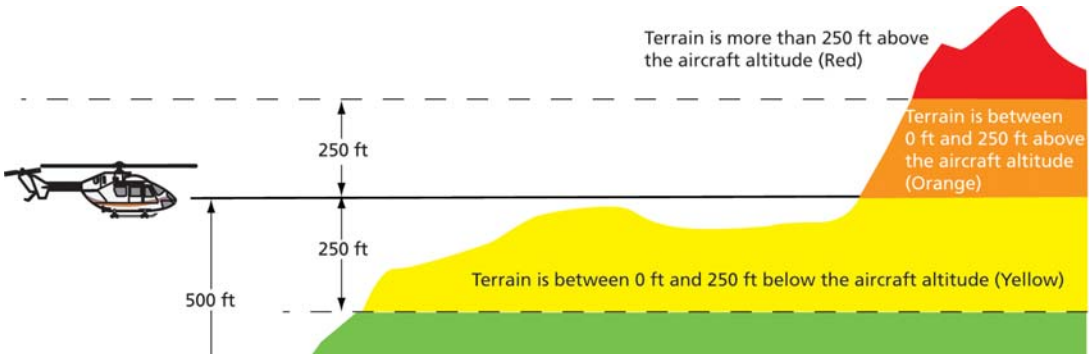
Traffic Symbols

Symbol	Description (Highest to Lowest Priority)
	Traffic Advisory (TA), In Range
	Traffic Advisory (TA), Out of Range
	Proximity Advisory (PA)
	Other Traffic

Terrain Obstacle Symbols


Obstacle is at or above the aircraft altitude (Red)
250 ft
250 ft
Obstacle is between 250 ft and 0 ft
below the aircraft altitude (Yellow)
Obstacle is 250 ft, or more,
below the aircraft altitude (Gray)

NOTE: *Obstacles will be removed from the Terrain pages at ranges* ***(RNG)*** *greater than 10 NM.*


Terrain is more than 250 ft above
the aircraft altitude (Red)
Terrain is between
0 ft and 250 ft above
the aircraft altitude
(Orange)
250 ft
250 ft
500 ft
Terrain is between 0 ft and 250 ft below the aircraft altitude (Yellow)

Terrain Altitude/Color Correlation

Map Toolbar Symbols

Symbol	Description
	Maximum Zoom Indicator
	Terrain Proximity Enabled and Available Indicator
	Terrain Proximity Enabled and Not Available Indicator
	Traffic Enabled and Available Indicator
	Traffic Enabled and Not Available Indicator

XM® Weather Toolbar Symbols

Symbol	Description
	NEXRAD
	Echo Top
	Cloud Top
	XM Lightning
	Cell Movement
	SIGMETs / AIRMETs
	METARs
	City Forecast
	Surface Analysis
	Freezing Levels
	Winds Aloft
	County Warnings
	Cyclone Warnings

Miscellaneous Symbols

Symbol	Description
	Piston Helicopter
	Turbine Helicopter
	Default Map Pointer
	Elevation Map Pointer
	User Waypoint
	Parallel Track Waypoint
	TFR (Temporary Flight Restrictions)
	Restricted/Prohibited/Warning/Alert
	MOA
	Class B Airspace
	Class C Airspace
	Class D Airspace

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